

Xpert[®] HPV v2 Laboratory Information System Guidance

REF GXHPV2-CE-10

ADF:	Xpert HPV v2 HR	Version 1
ADF:	Xpert HPV v2 HR_16_18-45	Version 1
ADF:	Xpert HPV v2 16_18-45	Version 1

Purpose: To provide information for enabling a Laboratory Information System (LIS) interface for the Xpert[®] HPV v2 test on GeneXpert[®] Systems.

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If you need further assistance, please contact Cepheid Technical Support for your specific region at <https://www.cepheid.com/en-US/support/contact-us.html>

1 Host Communication in GeneXpert® System

1.1 Consult your LIS System Administrator:

Before making changes to your GeneXpert LIS interface settings, consult your LIS System Administrator

1.2 Enable Host Communication:

If the GeneXpert system is not already configured for LIS host communication, follow the instructions in your GeneXpert System's User Guide: "Configuring Host Communications for a LIS."

1.3 Assay Host Test Code and Result Code Configuration:

Assay Host Test Code and Result Code must be defined in the GeneXpert system.

Note: When defining Host Test Codes and Result Codes, consider if your organization needs to use different Codes for different versions of Cepheid tests so that the test versions can be distinguished in your LIS.

1.4 Suggested Assay Host Test Codes

ADF Name / Assay Name	ADF Version	Assay Host Test Code	Result Name	Result Test Code
Xpert HPV v2 HR	1	HPVHR	² N/A	² N/A
Xpert HPV v2 16_18-45	1	HPV161845	HPV 16	HPV16
			HPV 18_45	HPV1845
Xpert HPV v2 HR_16_18-45	1	HPVHR161845	HPV 16	HPV16
			HPV 18_45	HPV1845
			OTHER HR HPV	OTHER

¹**Note:** As a Single-Result Assay, the Assay Host Test Code will be the same as the Upload and Download Code.

²**Note:** Result Code is not applicable for Single-Result Assay

2 Example Messages

These example messages can be used by an LIS interface analyst to understand the structure and content of Xpert® HPV v2 test results.

2.1 Example Messages

2.1.1 Example ASTM Messages: Xpert HPV v2 HR

Examples of Order Download Messages – ASTM

Host Query from GX to LIS, for sample ID “**SID12345**”:

```
H|@^|GXM-71366063581||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240730120855  
Q|1|^SID12345^^|^^|O@N  
L|1|N
```

Order message from LIS to GX, with download code “HPVHR”:

```
H|@^|ee8990f7-2e15-4889-8834-66f830af4abf||LIS|||| GeneXpert PC^GeneXpert^6.4||P|1394-97|20240730120858  
P|1||||^^  
O|1|^SID12345||^HPVHR|R|20240103175859||||||ORH||^|||||Q  
L|1|N
```

Examples of Result Messages - ASTM

Test Result: NEG

```
H|@^\|GXM-37815362343||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163815
P|1||||^^^|||||||||||||||||||||||||||||
O|1|HPV_v2_NEG||^HPVHR|R|20240809034049||||||ORH|||||||F
R|1|^HPVHR^Xpert HPV v2 HR^1^|NEG^||||F||LabTech|20240809034049|20240809043619|Cepheid-
PC^806750^647520^5^18002^20991220|
R|2|^HPVHR^^SAC^|PASS^|||
R|3|^HPVHR^^SAC^Ct|^29.3|||
R|4|^HPVHR^^SAC^EndPt|^62.0|||
R|5|^HPVHR^^HPV 16^|NEG^|||
R|6|^HPVHR^^HPV 16^Ct|^0.0|||
R|7|^HPVHR^^HPV 16^EndPt|^1.0|||
R|8|^HPVHR^^HPV 18_45^|NEG^|||
R|9|^HPVHR^^HPV 18_45^Ct|^0.0|||
R|10|^HPVHR^^HPV 18_45^EndPt|^1.0|||
R|11|^HPVHR^^P3^|NEG^|||
R|12|^HPVHR^^P3^Ct|^0.0|||
R|13|^HPVHR^^P3^EndPt|^0.0|||
R|14|^HPVHR^^P4^|NEG^|||
R|15|^HPVHR^^P4^Ct|^0.0|||
R|16|^HPVHR^^P4^EndPt|^-2.0|||
R|17|^HPVHR^^P5^|NEG^|||
R|18|^HPVHR^^P5^Ct|^0.0|||
R|19|^HPVHR^^P5^EndPt|^1.0|||
L|1|N
```

Test Result: POS

H|@^|GXM-22880716785||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163814
P|1|||^^^|
O|1|HPV_v2_POS||^HPVHR|R|20240809034848|||ORH|||F
R|1|^HPVHR^Xpert HPV v2 HR^1^|POS^|F||LabTech|20240809034848|20240809044432|Cepheid-
PC^821122^210052749^2^18002^20991220|
R|2|^HPVHR^SAC^|NA^||
R|3|^HPVHR^SAC^Ct|^29.9||
R|4|^HPVHR^SAC^EndPt|^56.0||
R|5|^HPVHR^HPV 16^|POS^||
R|6|^HPVHR^HPV 16^Ct|^28.1||
R|7|^HPVHR^HPV 16^EndPt|^420.0||
R|8|^HPVHR^HPV 18_45^|POS^||
R|9|^HPVHR^HPV 18_45^Ct|^29.6||
R|10|^HPVHR^HPV 18_45^EndPt|^213.0||
R|11|^HPVHR^P3^|POS^||
R|12|^HPVHR^P3^Ct|^28.0||
R|13|^HPVHR^P3^EndPt|^183.0||
R|14|^HPVHR^P4^|POS^||
R|15|^HPVHR^P4^Ct|^28.0||
R|16|^HPVHR^P4^EndPt|^291.0||
R|17|^HPVHR^P5^|POS^||
R|18|^HPVHR^P5^Ct|^30.8||
R|19|^HPVHR^P5^EndPt|^156.0||
L|1|N

Test Result: INVALID

H|@^|GXM-28315251671||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163813
P|1|||^^^|
O|1|HPV_v2_INV||^HPVHR|R|20240809035005||||ORH|||||F
R|1|^HPVHR^Xpert HPV v2 HR^1^|INVALID^||||F||LabTech|20240809035005|20240809044504|Cepheid-
PC^821122^791391^8^18002^20991220|
R|2|^HPVHR^^SAC^|FAIL^||
R|3|^HPVHR^^SAC^Ct|^0.0||
R|4|^HPVHR^^SAC^EndPt|^0.0||
R|5|^HPVHR^^HPV 16^|INVALID^||
R|6|^HPVHR^^HPV 16^Ct|^0.0||
R|7|^HPVHR^^HPV 16^EndPt|^1.0||
R|8|^HPVHR^^HPV 18_45^|INVALID^||
R|9|^HPVHR^^HPV 18_45^Ct|^0.0||
R|10|^HPVHR^^HPV 18_45^EndPt|^0.0||
R|11|^HPVHR^^P3^|INVALID^||
R|12|^HPVHR^^P3^Ct|^0.0||
R|13|^HPVHR^^P3^EndPt|^0.0||
R|14|^HPVHR^^P4^|INVALID^||
R|15|^HPVHR^^P4^Ct|^0.0||
R|16|^HPVHR^^P4^EndPt|^2.0||
R|17|^HPVHR^^P5^|INVALID^||
R|18|^HPVHR^^P5^Ct|^0.0||
R|19|^HPVHR^^P5^EndPt|^0.0||
L|1|N

Test Result: ERROR

H|@^|GXM-27748771547||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163812

P|1||||^||||||||||||||||||||||||||||||||

O|1|HPV_v2_ERROR|^HPVHR|R|20240809035215|||||||ORH|||||||F

R|1|^HPVHR^Xpert HPV v2 HR^1|^|ERROR^|||||F||LabTech|20240809035215|20240809040310|Cepheid-PC^821122^210006769^10^18002^20991220|

C|1||Error^5017^Post-run analysis error^Error 5017: [SAC] probe check failed. Probe check value of 0 for reading number 2 was below the valid level of 5^20240809040242|N

C|2||Error^5017^Post-run analysis error^Error 5017: [HPV 16] probe check failed. Probe check value of -1 for reading number 2 was below the valid level of 5^20240809040242|N

C|3||Error^5017^Post-run analysis error^Error 5017: [HPV 18_45] probe check failed. Probe check value of 0 for reading number 2 was below the valid level of 5^20240809040242|N

C|4||Error^5017^Post-run analysis error^Error 5017: [P3] probe check failed. Probe check value of 1 for reading number 2 was below the valid level of 5^20240809040242|N

C|5||Error^5007^Post-run analysis error^Error 5007: [P4] probe check failed. Probe check value of 18 for reading number 2 was below the minimum of 33^20240809040242|N

C|6||Error^5017^Post-run analysis error^Error 5017: [P5] probe check failed. Probe check value of 0 for reading number 2 was below the valid level of 5^20240809040242|N

R|2|^HPVHR^SAC^|NO RESULT^|||

R|3|^HPVHR^SAC^Ct|^0.0|||

R|4|^HPVHR^SAC^EndPt|^0.0|||

R|5|^HPVHR^HPV 16^|NO RESULT^|||

R|6|^HPVHR^HPV 16^Ct|^0.0|||

R|7|^HPVHR^HPV 16^EndPt|^0.0|||

R|8|^HPVHR^HPV 18_45^|NO RESULT^|||

R|9|^HPVHR^HPV 18_45^Ct|^0.0|||

R|10|^HPVHR^HPV 18_45^EndPt|^0.0|||

R|11|^HPVHR^P3^|NO RESULT^|||

R|12|^HPVHR^P3^Ct|^0.0|||

R|13|^HPVHR^P3^EndPt|^0.0|||

R|14|^HPVHR^P4^|NO RESULT^|||

R|15|^HPVHR^P4^Ct|^0.0|||

```
R|16|^HPVHR^P4^EndPt|^0.0||  
R|17|^HPVHR^P5^NO RESULT^||  
R|18|^HPVHR^P5^Ct|^0.0||  
R|19|^HPVHR^P5^EndPt|^0.0||  
L|1|N
```

2.1.1 Example ASTM Messages: Xpert HPV v2 HR_16_18-45

Examples of Order Download Messages – ASTM

Host Query from GX to LIS, for sample ID “**SID12345**”:

```
H|^GXM-71366063581||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240730120855  
Q|1|^SID12345^||^O@N  
L|1|N
```

Order message from LIS to GX, with download code “**HPVHR161845**”:

```
H|^ee8990f7-2e15-4889-8834-66f830af4abf||LIS|||| GeneXpert PC^GeneXpert^6.4||P|1394-97|20240730120858  
P|1|^  
O|1|^SID12345|^HPVHR161845|R|20240103175859||||||ORH|^|Q  
L|1|N
```


Examples of Result Messages - ASTM

Test Result: HPV 16: NEG; HPV 18_45: NEG; OTHER: NEG

H|@^\|GXM-05076278147||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163819
P|1||||^^^||||||||||||||||||||||||||||||
O|1|HPV_v2_NEG||^HPVHR161845|R|20240809033904||||||ORH|||||||F
R|1|^HPVHR161845^HPV16^Xpert HPV v2 HR_16_18-45^1^HPV 16^NEG^||||F||LabTech|20240809033904|20240809043412|Cepheid-PC^806750^615050^4^18002^20991220|
R|2|^HPVHR161845^HPV16^SAC^PASS^|||
R|3|^HPVHR161845^HPV16^SAC^Ct|^30.0|||
R|4|^HPVHR161845^HPV16^SAC^EndPt|^63.0|||
R|5|^HPVHR161845^HPV16^HPV 16^NEG^|||
R|6|^HPVHR161845^HPV16^HPV 16^Ct|^0.0|||
R|7|^HPVHR161845^HPV16^HPV 16^EndPt|^0.0|||
R|8|^HPVHR161845^HPV1845^Xpert HPV v2 HR_16_18-45^1^HPV 18_45^NEG^||||F||LabTech|20240809033904|20240809043412|Cepheid-PC^806750^615050^4^18002^20991220|
R|9|^HPVHR161845^HPV1845^SAC^PASS^|||
R|10|^HPVHR161845^HPV1845^SAC^Ct|^30.0|||
R|11|^HPVHR161845^HPV1845^SAC^EndPt|^63.0|||
R|12|^HPVHR161845^HPV1845^HPV 18_45^NEG^|||
R|13|^HPVHR161845^HPV1845^HPV 18_45^Ct|^0.0|||
R|14|^HPVHR161845^HPV1845^HPV 18_45^EndPt|^0.0|||
R|15|^HPVHR161845^OTHER^Xpert HPV v2 HR_16_18-45^1^OTHER HR HPV^NEG^||||F||LabTech|20240809033904|20240809043412|Cepheid-PC^806750^615050^4^18002^20991220|
R|16|^HPVHR161845^OTHER^SAC^PASS^|||
R|17|^HPVHR161845^OTHER^SAC^Ct|^30.0|||
R|18|^HPVHR161845^OTHER^SAC^EndPt|^63.0|||
R|19|^HPVHR161845^OTHER^P3^NEG^|||
R|20|^HPVHR161845^OTHER^P3^Ct|^0.0|||
R|21|^HPVHR161845^OTHER^P3^EndPt|^0.0|||
R|22|^HPVHR161845^OTHER^P4^NEG^|||
R|23|^HPVHR161845^OTHER^P4^Ct|^0.0|||

R|24|^HPVHR161845^OTHER^^P4^EndPt|^2.0||
R|25|^HPVHR161845^OTHER^^P5^NEG^||
R|26|^HPVHR161845^OTHER^^P5^Ct|^0.0||
R|27|^HPVHR161845^OTHER^^P5^EndPt|^0.0||
L|1|N

Test Result: HPV 16: POS; HPV 18_45: POS; OTHER: POS

H|@|^|GXM-75208840616||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163819
P|1||||^^|

O|1|^HPV_v2_POS|^HPVHR161845|R|20240809034822||||ORH||||F

R|1|^HPVHR161845^HPV16^Xpert HPV v2 HR_16_18-45^1^HPV 16^POS^||||F||LabTech|20240809034822|20240809044342|Cepheid-PC^821122^210045557^3^18002^20991220|

R|2|^HPVHR161845^HPV16^^SAC^|NA^||

R|3|^HPVHR161845^HPV16^^SAC^Ct|^29.5||

R|4|^HPVHR161845^HPV16^^SAC^EndPt|^56.0||

R|5|^HPVHR161845^HPV16^^HPV 16^POS^||

R|6|^HPVHR161845^HPV16^^HPV 16^Ct|^26.9||

R|7|^HPVHR161845^HPV16^^HPV 16^EndPt|^435.0||

R|8|^HPVHR161845^HPV1845^Xpert HPV v2 HR_16_18-45^1^HPV

18_45^POS^||||F||LabTech|20240809034822|20240809044342|Cepheid-PC^821122^210045557^3^18002^20991220|

R|9|^HPVHR161845^HPV1845^^SAC^|NA^||

R|10|^HPVHR161845^HPV1845^^SAC^Ct|^29.5||

R|11|^HPVHR161845^HPV1845^^SAC^EndPt|^56.0||

R|12|^HPVHR161845^HPV1845^^HPV 18_45^POS^||

R|13|^HPVHR161845^HPV1845^^HPV 18_45^Ct|^28.6||

R|14|^HPVHR161845^HPV1845^^HPV 18_45^EndPt|^224.0||

R|15|^HPVHR161845^OTHER^Xpert HPV v2 HR_16_18-45^1^OTHER HR

HPV^POS^||||F||LabTech|20240809034822|20240809044342|Cepheid-PC^821122^210045557^3^18002^20991220|

R|16|^HPVHR161845^OTHER^^SAC^|NA^||

R|17|^HPVHR161845^OTHER^^SAC^Ct|^29.5||

R|18|^HPVHR161845^OTHER^^SAC^EndPt|^56.0||

R|19|^HPVHR161845^OTHER^^P3^POS^||

R|20|^HPVHR161845^OTHER^P3^Ct|^26.9|||
 R|21|^HPVHR161845^OTHER^P3^EndPt|^200.0|||
 R|22|^HPVHR161845^OTHER^P4^POS^|||
 R|23|^HPVHR161845^OTHER^P4^Ct|^26.7|||
 R|24|^HPVHR161845^OTHER^P4^EndPt|^306.0|||
 R|25|^HPVHR161845^OTHER^P5^POS^|||
 R|26|^HPVHR161845^OTHER^P5^Ct|^29.7|||
 R|27|^HPVHR161845^OTHER^P5^EndPt|^167.0|||
 L|1|N

Test Result: INVALID

H|@^|\GXM-03180577130||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163818
 P|1||||^||||||||||||||||||||||||||||||||
 O|1|HPV_v2_INV||^HPVHR161845|R|20240809034940||||||ORH|||||||F
 R|1|^HPVHR161845^HPV16^Xpert HPV v2 HR_16_18-45^1^HPV
 16^INVALID^||||F||LabTech|20240809034940|20240809044459|Cepheid-PC^821122^210052907^9^18002^20991220|
 R|2|^HPVHR161845^HPV16^SAC^FAIL^|||
 R|3|^HPVHR161845^HPV16^SAC^Ct|^0.0|||
 R|4|^HPVHR161845^HPV16^SAC^EndPt|^0.0|||
 R|5|^HPVHR161845^HPV16^HPV 16^INVALID^|||
 R|6|^HPVHR161845^HPV16^HPV 16^Ct|^0.0|||
 R|7|^HPVHR161845^HPV16^HPV 16^EndPt|^0.0|||
 R|8|^HPVHR161845^HPV1845^Xpert HPV v2 HR_16_18-45^1^HPV
 18_45^INVALID^||||F||LabTech|20240809034940|20240809044459|Cepheid-PC^821122^210052907^9^18002^20991220|
 R|9|^HPVHR161845^HPV1845^SAC^FAIL^|||
 R|10|^HPVHR161845^HPV1845^SAC^Ct|^0.0|||
 R|11|^HPVHR161845^HPV1845^SAC^EndPt|^0.0|||
 R|12|^HPVHR161845^HPV1845^HPV 18_45^INVALID^|||
 R|13|^HPVHR161845^HPV1845^HPV 18_45^Ct|^0.0|||
 R|14|^HPVHR161845^HPV1845^HPV 18_45^EndPt|^0.0|||
 R|15|^HPVHR161845^OTHER^Xpert HPV v2 HR_16_18-45^1^OTHER HR
 HPV^INVALID^||||F||LabTech|20240809034940|20240809044459|Cepheid-PC^821122^210052907^9^18002^20991220|

R|16|^HPVHR161845^OTHER^^SAC^|FAIL^||
R|17|^HPVHR161845^OTHER^^SAC^Ct|^0.0||
R|18|^HPVHR161845^OTHER^^SAC^EndPt|^0.0||
R|19|^HPVHR161845^OTHER^^P3^|INVALID^||
R|20|^HPVHR161845^OTHER^^P3^Ct|^0.0||
R|21|^HPVHR161845^OTHER^^P3^EndPt|^-1.0||
R|22|^HPVHR161845^OTHER^^P4^|INVALID^||
R|23|^HPVHR161845^OTHER^^P4^Ct|^0.0||
R|24|^HPVHR161845^OTHER^^P4^EndPt|^-2.0||
R|25|^HPVHR161845^OTHER^^P5^|INVALID^||
R|26|^HPVHR161845^OTHER^^P5^Ct|^0.0||
R|27|^HPVHR161845^OTHER^^P5^EndPt|^0.0||
L|1|N

Test Result: ERROR

H|@|^|GXM-00135552761||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163815
P|1||||^^^|

O|1|HPV_v2_ERROR|^HPVHR161845|R|20240809041752|ORH|F

R|1|^HPVHR161845^HPV16^Xpert HPV v2 HR_16_18-45^1^HPV
16^|ERROR^|F|LabTech|20240809041752|20240809042846|Cepheid-PC^821122^616829^19^18002^20991220|

C|1||Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 22 for reading number 2 was below the minimum of 31^20240809042820|N

C|2||Error^5007^Post-run analysis error^Error 5007: [HPV 16] probe check failed. Probe check value of 23 for reading number 2 was below the minimum of 34^20240809042820|N

C|3||Error^5007^Post-run analysis error^Error 5007: [HPV 18_45] probe check failed. Probe check value of 22 for reading number 2 was below the minimum of 30^20240809042820|N

C|4||Error^5007^Post-run analysis error^Error 5007: [P4] probe check failed. Probe check value of 25 for reading number 2 was below the minimum of 33^20240809042820|N

C|5||Error^5007^Post-run analysis error^Error 5007: [P5] probe check failed. Probe check value of 49 for reading number 2 was below the minimum of 53^20240809042820|N

R|2|^HPVHR161845^HPV16^^SAC^|NO RESULT^||

R|3|^HPVHR161845^HPV16^^SAC^Ct|^0.0||

R|4|^HPVHR161845^HPV16^SAC^EndPt|^0.0|||
R|5|^HPVHR161845^HPV16^HPV 16^NO RESULT^|||
R|6|^HPVHR161845^HPV16^HPV 16^Ct|^0.0|||
R|7|^HPVHR161845^HPV16^HPV 16^EndPt|^0.0|||
R|8|^HPVHR161845^HPV1845^Xpert HPV v2 HR_16_18-45^1^HPV
18_45^|ERROR^|F|LabTech|20240809041752|20240809042846|Cepheid-PC^821122^616829^19^18002^20991220|
C|1||Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 22 for reading number 2 was below the
minimum of 31^20240809042820|N
C|2||Error^5007^Post-run analysis error^Error 5007: [HPV 16] probe check failed. Probe check value of 23 for reading number 2 was below
the minimum of 34^20240809042820|N
C|3||Error^5007^Post-run analysis error^Error 5007: [HPV 18_45] probe check failed. Probe check value of 22 for reading number 2 was
below the minimum of 30^20240809042820|N
C|4||Error^5007^Post-run analysis error^Error 5007: [P4] probe check failed. Probe check value of 25 for reading number 2 was below the
minimum of 33^20240809042820|N
C|5||Error^5007^Post-run analysis error^Error 5007: [P5] probe check failed. Probe check value of 49 for reading number 2 was below the
minimum of 53^20240809042820|N
R|9|^HPVHR161845^HPV1845^SAC^NO RESULT^|||
R|10|^HPVHR161845^HPV1845^SAC^Ct|^0.0|||
R|11|^HPVHR161845^HPV1845^SAC^EndPt|^0.0|||
R|12|^HPVHR161845^HPV1845^HPV 18_45^NO RESULT^|||
R|13|^HPVHR161845^HPV1845^HPV 18_45^Ct|^0.0|||
R|14|^HPVHR161845^HPV1845^HPV 18_45^EndPt|^0.0|||
R|15|^HPVHR161845^OTHER^Xpert HPV v2 HR_16_18-45^1^OTHER HR
HPV^|ERROR^|F|LabTech|20240809041752|20240809042846|Cepheid-PC^821122^616829^19^18002^20991220|
C|1||Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 22 for reading number 2 was below the
minimum of 31^20240809042820|N
C|2||Error^5007^Post-run analysis error^Error 5007: [HPV 16] probe check failed. Probe check value of 23 for reading number 2 was below
the minimum of 34^20240809042820|N
C|3||Error^5007^Post-run analysis error^Error 5007: [HPV 18_45] probe check failed. Probe check value of 22 for reading number 2 was
below the minimum of 30^20240809042820|N
C|4||Error^5007^Post-run analysis error^Error 5007: [P4] probe check failed. Probe check value of 25 for reading number 2 was below the
minimum of 33^20240809042820|N
C|5||Error^5007^Post-run analysis error^Error 5007: [P5] probe check failed. Probe check value of 49 for reading number 2 was below the

minimum of 53^20240809042820|N
R|16|^HPVHR161845^OTHER^^SAC^|NO RESULT^||
R|17|^HPVHR161845^OTHER^^SAC^Ct|^0.0||
R|18|^HPVHR161845^OTHER^^SAC^EndPt|^0.0||
R|19|^HPVHR161845^OTHER^^P3^|NO RESULT^||
R|20|^HPVHR161845^OTHER^^P3^Ct|^0.0||
R|21|^HPVHR161845^OTHER^^P3^EndPt|^0.0||
R|22|^HPVHR161845^OTHER^^P4^|NO RESULT^||
R|23|^HPVHR161845^OTHER^^P4^Ct|^0.0||
R|24|^HPVHR161845^OTHER^^P4^EndPt|^0.0||
R|25|^HPVHR161845^OTHER^^P5^|NO RESULT^||
R|26|^HPVHR161845^OTHER^^P5^Ct|^0.0||
R|27|^HPVHR161845^OTHER^^P5^EndPt|^0.0||
L|1|N

Test Result: NO RESULT

H|@^|GXM-01261668203||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163816
P|1||||^^^||||||||||||||||||||||||||
O|1|HPV_v2_NO RES||^HPVHR161845|R|20240809040416||||||ORH|||||||F
R|1|^HPVHR161845^HPV16^Xpert HPV v2 HR_16_18-45^1^HPV 16^|NO
RESULT^||||F||LabTech|20240809040416|20240809040510|Cepheid-PC^821122^616829^12^18002^20991220|
R|2|^HPVHR161845^HPV16^^SAC^|NO RESULT^||
R|3|^HPVHR161845^HPV16^^SAC^Ct|^0.0||
R|4|^HPVHR161845^HPV16^^SAC^EndPt|^0.0||
R|5|^HPVHR161845^HPV16^^HPV 16^|NO RESULT^||
R|6|^HPVHR161845^HPV16^^HPV 16^Ct|^0.0||
R|7|^HPVHR161845^HPV16^^HPV 16^EndPt|^0.0||
R|8|^HPVHR161845^HPV1845^Xpert HPV v2 HR_16_18-45^1^HPV 18_45^|NO
RESULT^||||F||LabTech|20240809040416|20240809040510|Cepheid-PC^821122^616829^12^18002^20991220|
R|9|^HPVHR161845^HPV1845^^SAC^|NO RESULT^||
R|10|^HPVHR161845^HPV1845^^SAC^Ct|^0.0||
R|11|^HPVHR161845^HPV1845^^SAC^EndPt|^0.0||

R|12|^HPVHR161845^HPV1845^HPV 18_45^|NO RESULT^||
R|13|^HPVHR161845^HPV1845^HPV 18_45^Ct|^0.0||
R|14|^HPVHR161845^HPV1845^HPV 18_45^EndPt|^0.0||
R|15|^HPVHR161845^OTHER^Xpert HPV v2 HR_16_18-45^1^OTHER HR HPV^|NO
RESULT^||||F||LabTech|20240809040416|20240809040510|Cepheid-PC^821122^616829^12^18002^20991220|
R|16|^HPVHR161845^OTHER^^SAC^|NO RESULT^||
R|17|^HPVHR161845^OTHER^^SAC^Ct|^0.0||
R|18|^HPVHR161845^OTHER^^SAC^EndPt|^0.0||
R|19|^HPVHR161845^OTHER^^P3^|NO RESULT^||
R|20|^HPVHR161845^OTHER^^P3^Ct|^0.0||
R|21|^HPVHR161845^OTHER^^P3^EndPt|^0.0||
R|22|^HPVHR161845^OTHER^^P4^|NO RESULT^||
R|23|^HPVHR161845^OTHER^^P4^Ct|^0.0||
R|24|^HPVHR161845^OTHER^^P4^EndPt|^0.0||
R|25|^HPVHR161845^OTHER^^P5^|NO RESULT^||
R|26|^HPVHR161845^OTHER^^P5^Ct|^0.0||
R|27|^HPVHR161845^OTHER^^P5^EndPt|^0.0||
L|1|N

2.1.1 Example ASTM Messages: Xpert HPV v2 16_18-45

Examples of Order Download Messages – ASTM

Host Query from GX to LIS, for sample ID “**SID12345**”:

```
H|@^|GXM-71366063581||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240730120855  
Q|1|^SID12345^^|^^|O@N  
L|1|N
```

Order message from LIS to GX, with download code “**HPV161845**”:

```
H|@^|ee8990f7-2e15-4889-8834-66f830af4abf||LIS|||| GeneXpert PC^GeneXpert^6.4||P|1394-97|20240730120858  
P|1|^^  
O|1|^SID12345^^HPV161845|R|20240103175859||||||ORH||^|||Q  
L|1|N
```


Examples of Result Messages - ASTM

Test Result: HPV 16: NEG; HPV 18_45: NEG

```
H|@^\|GXM-00536057020||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163810
P|1||||^^^|||||||||||||||||||||||||||||
O|1|HPV_v2_NEG||^HPV161845|R|20240809034112||||||ORH|||||||F
R|1|^HPV161845^HPV16^Xpert HPV v2 16_18-45^1^HPV 16^NEG^||||F||LabTech|20240809034112|20240809043628|Cepheid-
PC^806750^797246^6^18002^20991220|
R|2|^HPV161845^HPV16^SAC^PASS^|||
R|3|^HPV161845^HPV16^SAC^Ct|^30.2|||
R|4|^HPV161845^HPV16^SAC^EndPt|^59.0|||
R|5|^HPV161845^HPV16^HPV 16^NEG^|||
R|6|^HPV161845^HPV16^HPV 16^Ct|^0.0|||
R|7|^HPV161845^HPV16^HPV 16^EndPt|^0.0|||
R|8|^HPV161845^HPV1845^Xpert HPV v2 16_18-45^1^HPV 18_45^NEG^||||F||LabTech|20240809034112|20240809043628|Cepheid-
PC^806750^797246^6^18002^20991220|
R|9|^HPV161845^HPV1845^SAC^PASS^|||
R|10|^HPV161845^HPV1845^SAC^Ct|^30.2|||
R|11|^HPV161845^HPV1845^SAC^EndPt|^59.0|||
R|12|^HPV161845^HPV1845^HPV 18_45^NEG^|||
R|13|^HPV161845^HPV1845^HPV 18_45^Ct|^0.0|||
R|14|^HPV161845^HPV1845^HPV 18_45^EndPt|^0.0|||
L|1|N
```

Test Result: HPV 16: POS; HPV 18_45: POS

H|@^|GXM-45113872682||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163810

P|1||||^^^||||||||||||||||||||||||||||

O|1|HPV_v2_POS||^HPV161845|R|20240809034911||||||ORH|||||||F

R|1|^HPV161845^^HPV16^Xpert HPV v2 16_18-45^1^HPV 16^|POS^||||F||LabTech|20240809034911|20240809044505|Cepheid-PC^821122^210053135^1^18002^20991220|

R|2|^HPV161845^^HPV16^^SAC^|NA^|||

R|3|^HPV161845^^HPV16^^SAC^Ct|^29.8|||

R|4|^HPV161845^^HPV16^^SAC^EndPt|^58.0|||

R|5|^HPV161845^^HPV16^^HPV 16^|POS^|||

R|6|^HPV161845^^HPV16^^HPV 16^Ct|^27.4|||

R|7|^HPV161845^^HPV16^^HPV 16^EndPt|^432.0|||

R|8|^HPV161845^^HPV1845^Xpert HPV v2 16_18-45^1^HPV 18_45^|POS^||||F||LabTech|20240809034911|20240809044505|Cepheid-PC^821122^210053135^1^18002^20991220|

R|9|^HPV161845^^HPV1845^^SAC^|NA^|||

R|10|^HPV161845^^HPV1845^^SAC^Ct|^29.8|||

R|11|^HPV161845^^HPV1845^^SAC^EndPt|^58.0|||

R|12|^HPV161845^^HPV1845^^HPV 18_45^|POS^|||

R|13|^HPV161845^^HPV1845^^HPV 18_45^Ct|^29.2|||

R|14|^HPV161845^^HPV1845^^HPV 18_45^EndPt|^213.0|||

L|1|N

Test Result: INVALID

H|@^|GXM-44268358341||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163809
P|1||||^^^||||||||||||||||||||||||||
O|1|HPV_v2_INV||^HPV161845|R|20240809035028||||||ORH|||||||F
R|1|^HPV161845^HPV16^Xpert HPV v2 16_18-45^1^HPV 16^INVALID^||||F||LabTech|20240809035028|20240809044549|Cepheid-PC^821122^210053083^7^18002^20991220|
R|2|^HPV161845^HPV16^SAC^FAIL^||
R|3|^HPV161845^HPV16^SAC^Ct|^0.0||
R|4|^HPV161845^HPV16^SAC^EndPt|^0.0||
R|5|^HPV161845^HPV16^HPV 16^INVALID^||
R|6|^HPV161845^HPV16^HPV 16^Ct|^0.0||
R|7|^HPV161845^HPV16^HPV 16^EndPt|^1.0||
R|8|^HPV161845^HPV1845^Xpert HPV v2 16_18-45^1^HPV 18_45^INVALID^||||F||LabTech|20240809035028|20240809044549|Cepheid-PC^821122^210053083^7^18002^20991220|
R|9|^HPV161845^HPV1845^SAC^FAIL^||
R|10|^HPV161845^HPV1845^SAC^Ct|^0.0||
R|11|^HPV161845^HPV1845^SAC^EndPt|^0.0||
R|12|^HPV161845^HPV1845^HPV 18_45^INVALID^||
R|13|^HPV161845^HPV1845^HPV 18_45^Ct|^0.0||
R|14|^HPV161845^HPV1845^HPV 18_45^EndPt|^0.0||
L|1|N

Test Result: ERROR

H|@^\|GXM-23802828228||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163808
P|1||||^^^||||||||||||||||||||||||||||||
O|1|HPV_v2_ERROR|^HPV161845|R|20240809035238||||||ORH|||||||F
R|1|^HPV161845^HPV16^Xpert HPV v2 16_18-45^1^HPV 16^|ERROR^||||F||LabTech|20240809035238|20240809040335|Cepheid-PC^821122^700920^20^18002^20991220|
C|1||Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 20 for reading number 2 was below the minimum of 31^20240809040307|N
R|2|^HPV161845^HPV16^SAC^|NO RESULT^||
R|3|^HPV161845^HPV16^SAC^Ct|^0.0||
R|4|^HPV161845^HPV16^SAC^EndPt|^0.0||
R|5|^HPV161845^HPV16^HPV 16^|NO RESULT^||
R|6|^HPV161845^HPV16^HPV 16^Ct|^0.0||
R|7|^HPV161845^HPV16^HPV 16^EndPt|^0.0||
R|8|^HPV161845^HPV1845^Xpert HPV v2 16_18-45^1^HPV 18_45^|ERROR^||||F||LabTech|20240809035238|20240809040335|Cepheid-PC^821122^700920^20^18002^20991220|
C|1||Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 20 for reading number 2 was below the minimum of 31^20240809040307|N
R|9|^HPV161845^HPV1845^SAC^|NO RESULT^||
R|10|^HPV161845^HPV1845^SAC^Ct|^0.0||
R|11|^HPV161845^HPV1845^SAC^EndPt|^0.0||
R|12|^HPV161845^HPV1845^HPV 18_45^|NO RESULT^||
R|13|^HPV161845^HPV1845^HPV 18_45^Ct|^0.0||
R|14|^HPV161845^HPV1845^HPV 18_45^EndPt|^0.0||
L|1|N

Test Result: NO RESULT

H|@^|GXM-65835285825||GeneXpert PC^GeneXpert^6.4||||LIS||P|1394-97|20240809163807
P|1||||^^^||||||||||||||||||||||||||
O|1|HPV_v2_NO RES||^HPV161845|R|20240809041113||||||ORH|||||||F
R|1|^HPV161845^HPV16^Xpert HPV v2 16_18-45^1^HPV 16^NO RESULT^||||F||LabTech|20240809041113|20240809041208|Cepheid-PC^821122^616829^14^18002^20991220|
R|2|^HPV161845^HPV16^SAC^NO RESULT^|||
R|3|^HPV161845^HPV16^SAC^Ct|^0.0|||
R|4|^HPV161845^HPV16^SAC^EndPt|^0.0|||
R|5|^HPV161845^HPV16^HPV 16^NO RESULT^|||
R|6|^HPV161845^HPV16^HPV 16^Ct|^0.0|||
R|7|^HPV161845^HPV16^HPV 16^EndPt|^0.0|||
R|8|^HPV161845^HPV1845^Xpert HPV v2 16_18-45^1^HPV 18_45^NO RESULT^||||F||LabTech|20240809041113|20240809041208|Cepheid-PC^821122^616829^14^18002^20991220|
R|9|^HPV161845^HPV1845^SAC^NO RESULT^|||
R|10|^HPV161845^HPV1845^SAC^Ct|^0.0|||
R|11|^HPV161845^HPV1845^SAC^EndPt|^0.0|||
R|12|^HPV161845^HPV1845^HPV 18_45^NO RESULT^|||
R|13|^HPV161845^HPV1845^HPV 18_45^Ct|^0.0|||
R|14|^HPV161845^HPV1845^HPV 18_45^EndPt|^0.0|||
L|1|N

2.1.2 Example HL7 Messages: Xpert HPV v2 HR

Examples of Order Download Messages – HL7

Host Query from GX to LIS, for sample ID “SID12345”:

```
MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240730120305||QBP^Z03^QBP_Z03|GXM-43241454842|P|2.5
QPD|Z03^HOST QUERY|GXM-75733348430||SID12345|
RCP|I
```

Order message from LIS to GX, with download code “HPVHR”

```
MSH|^~\&|LIS||GeneXpert PC^GeneXpert^6.4||||d3a93281-ec63-4fa3-b6fc-d8b890f61309|P|2.5|||
MSA|AA|GXM-75733348430|
QAK|GXM-75733348430|OK|Z03^HOST QUERY
QPD|Z03^HOST QUERY|GXM-75733348430||SID12345
PID|1|||^^^
ORC|NW|1|||20240103175859
OBR|1||HPVHR|||A
TQ1|||R
SPM|1|SID12345^|ORH|||P
```

Examples of Result Messages - HL7

Test Result: NEG

```
MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163330||ORU^R32^ORU_R30|GXM-55422283788|P|2.5|||||||
PID|1||||^^^||||^^^||||||
ORC|RE|1|||||20240809034049
OBR|1||HPVHR|||||||||||||F
TQ1|||||20240809034049|20240809043619|R
OBX|1|ST|&HPVHR&Xpert HPV v2 HR&1|&NEG^|||||F||||^LabTech||20991220~18002~5~647520~806750~Cepheid-PC
OBX|2|ST|&HPVHR&&|SAC&|PASS^||
OBX|3|ST|&HPVHR&&|SAC&Ct|^29.3||
OBX|4|ST|&HPVHR&&|SAC&EndPt|^62.0||
OBX|5|ST|&HPVHR&&|HPV 16&|NEG^||
OBX|6|ST|&HPVHR&&|HPV 16&Ct|^0.0||
OBX|7|ST|&HPVHR&&|HPV 16&EndPt|^1.0||
OBX|8|ST|&HPVHR&&|HPV 18_45&|NEG^||
OBX|9|ST|&HPVHR&&|HPV 18_45&Ct|^0.0||
OBX|10|ST|&HPVHR&&|HPV 18_45&EndPt|^1.0||
OBX|11|ST|&HPVHR&&|P3&|NEG^||
OBX|12|ST|&HPVHR&&|P3&Ct|^0.0||
OBX|13|ST|&HPVHR&&|P3&EndPt|^0.0||
OBX|14|ST|&HPVHR&&|P4&|NEG^||
OBX|15|ST|&HPVHR&&|P4&Ct|^0.0||
OBX|16|ST|&HPVHR&&|P4&EndPt|^-2.0||
OBX|17|ST|&HPVHR&&|P5&|NEG^||
OBX|18|ST|&HPVHR&&|P5&Ct|^0.0||
OBX|19|ST|&HPVHR&&|P5&EndPt|^1.0||
SPM|1|HPV_v2_NEG^||ORH|||||P
```

Test Result: POS

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163329||ORU^R32^ORU_R30|GXM-08523153177|P|2.5|||||||
PID|1||||^||||||^|||||||
ORC|RE|1|||||20240809034848
OBR|1||HPVHR|||||||F
TQ1|||||20240809034848|20240809044432|R
OBX|1|ST|&HPVHR&Xpert HPV v2 HR&1|&|POS^|||||F|||||^LabTech||20991220~18002~2~210052749~821122~Cepheid-PC
OBX|2|ST|&HPVHR&&|SAC&|NA^||
OBX|3|ST|&HPVHR&&|SAC&Ct|^29.9||
OBX|4|ST|&HPVHR&&|SAC&EndPt|^56.0||
OBX|5|ST|&HPVHR&&|HPV 16&|POS^||
OBX|6|ST|&HPVHR&&|HPV 16&Ct|^28.1||
OBX|7|ST|&HPVHR&&|HPV 16&EndPt|^420.0||
OBX|8|ST|&HPVHR&&|HPV 18_45&|POS^||
OBX|9|ST|&HPVHR&&|HPV 18_45&Ct|^29.6||
OBX|10|ST|&HPVHR&&|HPV 18_45&EndPt|^213.0||
OBX|11|ST|&HPVHR&&|P3&|POS^||
OBX|12|ST|&HPVHR&&|P3&Ct|^28.0||
OBX|13|ST|&HPVHR&&|P3&EndPt|^183.0||
OBX|14|ST|&HPVHR&&|P4&|POS^||
OBX|15|ST|&HPVHR&&|P4&Ct|^28.0||
OBX|16|ST|&HPVHR&&|P4&EndPt|^291.0||
OBX|17|ST|&HPVHR&&|P5&|POS^||
OBX|18|ST|&HPVHR&&|P5&Ct|^30.8||
OBX|19|ST|&HPVHR&&|P5&EndPt|^156.0||
SPM|1|HPV_v2_POS^||ORH|||||P

Test Result: INVALID

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163328||ORU^R32^ORU_R30|GXM-70101020163|P|2.5|||||||
PID|1||||^||||||^|||||||
ORC|RE|1|||||20240809035005
OBR|1||HPVHR|||||||F
TQ1|||||20240809035005|20240809044504|R
OBX|1|ST|&HPVHR&Xpert HPV v2 HR&1|&|INVALID^|||||F||||^LabTech||20991220~18002~8~791391~821122~Cepheid-PC
OBX|2|ST|&HPVHR&&|SAC&|FAIL^|
OBX|3|ST|&HPVHR&&|SAC&Ct|^0.0|
OBX|4|ST|&HPVHR&&|SAC&EndPt|^0.0|
OBX|5|ST|&HPVHR&&|HPV 16&|INVALID^|
OBX|6|ST|&HPVHR&&|HPV 16&Ct|^0.0|
OBX|7|ST|&HPVHR&&|HPV 16&EndPt|^1.0|
OBX|8|ST|&HPVHR&&|HPV 18_45&|INVALID^|
OBX|9|ST|&HPVHR&&|HPV 18_45&Ct|^0.0|
OBX|10|ST|&HPVHR&&|HPV 18_45&EndPt|^0.0|
OBX|11|ST|&HPVHR&&|P3&|INVALID^|
OBX|12|ST|&HPVHR&&|P3&Ct|^0.0|
OBX|13|ST|&HPVHR&&|P3&EndPt|^0.0|
OBX|14|ST|&HPVHR&&|P4&|INVALID^|
OBX|15|ST|&HPVHR&&|P4&Ct|^0.0|
OBX|16|ST|&HPVHR&&|P4&EndPt|^2.0|
OBX|17|ST|&HPVHR&&|P5&|INVALID^|
OBX|18|ST|&HPVHR&&|P5&Ct|^0.0|
OBX|19|ST|&HPVHR&&|P5&EndPt|^0.0|
SPM|1|HPV_v2_INV^|ORH|||||P

Test Result: ERROR

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163327||ORU^R32^ORU_R30|GXM-60254561707|P|2.5|||||||
PID|1||||^||||||^|||||||
ORC|RE|1|||||20240809035215
OBR|1||HPVHR|||||||F
TQ1|||||20240809035215|20240809040310|R
OBX|1|ST|&HPVHR&Xpert HPV v2 HR&1|&|ERROR^|||||F||||^LabTech||20991220~18002~10~210006769~821122~Cepheid-PC
NTE|1|L|Error^5017^Post-run analysis error^Error 5017: [SAC] probe check failed. Probe check value of 0 for reading number 2 was below the valid level of 5^20240809040242
NTE|2|L|Error^5017^Post-run analysis error^Error 5017: [HPV 16] probe check failed. Probe check value of -1 for reading number 2 was below the valid level of 5^20240809040242
NTE|3|L|Error^5017^Post-run analysis error^Error 5017: [HPV 18_45] probe check failed. Probe check value of 0 for reading number 2 was below the valid level of 5^20240809040242
NTE|4|L|Error^5017^Post-run analysis error^Error 5017: [P3] probe check failed. Probe check value of 1 for reading number 2 was below the valid level of 5^20240809040242
NTE|5|L|Error^5007^Post-run analysis error^Error 5007: [P4] probe check failed. Probe check value of 18 for reading number 2 was below the minimum of 33^20240809040242
NTE|6|L|Error^5017^Post-run analysis error^Error 5017: [P5] probe check failed. Probe check value of 0 for reading number 2 was below the valid level of 5^20240809040242
OBX|2|ST|&HPVHR&&|SAC&|NO RESULT^||
OBX|3|ST|&HPVHR&&|SAC&Ct|^0.0||
OBX|4|ST|&HPVHR&&|SAC&EndPt|^0.0||
OBX|5|ST|&HPVHR&&|HPV 16&|NO RESULT^||
OBX|6|ST|&HPVHR&&|HPV 16&Ct|^0.0||
OBX|7|ST|&HPVHR&&|HPV 16&EndPt|^0.0||
OBX|8|ST|&HPVHR&&|HPV 18_45&|NO RESULT^||
OBX|9|ST|&HPVHR&&|HPV 18_45&Ct|^0.0||
OBX|10|ST|&HPVHR&&|HPV 18_45&EndPt|^0.0||
OBX|11|ST|&HPVHR&&|P3&|NO RESULT^||
OBX|12|ST|&HPVHR&&|P3&Ct|^0.0||
OBX|13|ST|&HPVHR&&|P3&EndPt|^0.0||

OBX|14|ST|&HPVHR&&|P4&|NO RESULT^||
OBX|15|ST|&HPVHR&&|P4&Ct|^0.0||
OBX|16|ST|&HPVHR&&|P4&EndPt|^0.0||
OBX|17|ST|&HPVHR&&|P5&|NO RESULT^||
OBX|18|ST|&HPVHR&&|P5&Ct|^0.0||
OBX|19|ST|&HPVHR&&|P5&EndPt|^0.0||
SPM|1|HPV_v2_ERROR^||ORH|||||P

Test Result: NO RESULT

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163326||ORU^R32^ORU_R30|GXM-52572036666|P|2.5|||||||
PID|1||||^||||||^|||||||
ORC|RE|1|||||20240809040644
OBR|1||HPVHR|||||||F
TQ1|||||20240809040644|20240809040738|R
OBX|1|ST|&HPVHR&Xpert HPV v2 HR&1|&NO RESULT^|||||F||||^LabTech||20991220~18002~15~616829~821122~Cepheid-PC
OBX|2|ST|&HPVHR&&|SAC&|NO RESULT^||
OBX|3|ST|&HPVHR&&|SAC&Ct|^0.0||
OBX|4|ST|&HPVHR&&|SAC&EndPt|^0.0||
OBX|5|ST|&HPVHR&&|HPV 16&|NO RESULT^||
OBX|6|ST|&HPVHR&&|HPV 16&Ct|^0.0||
OBX|7|ST|&HPVHR&&|HPV 16&EndPt|^0.0||
OBX|8|ST|&HPVHR&&|HPV 18_45&|NO RESULT^||
OBX|9|ST|&HPVHR&&|HPV 18_45&Ct|^0.0||
OBX|10|ST|&HPVHR&&|HPV 18_45&EndPt|^0.0||
OBX|11|ST|&HPVHR&&|P3&|NO RESULT^||
OBX|12|ST|&HPVHR&&|P3&Ct|^0.0||
OBX|13|ST|&HPVHR&&|P3&EndPt|^0.0||
OBX|14|ST|&HPVHR&&|P4&|NO RESULT^||
OBX|15|ST|&HPVHR&&|P4&Ct|^0.0||
OBX|16|ST|&HPVHR&&|P4&EndPt|^0.0||
OBX|17|ST|&HPVHR&&|P5&|NO RESULT^||
OBX|18|ST|&HPVHR&&|P5&Ct|^0.0||
OBX|19|ST|&HPVHR&&|P5&EndPt|^0.0||
SPM|1|HPV_v2_NO RES^||ORH|||||P

2.1.2 Example HL7 Messages: Xpert HPV v2 HR_16_18-45

Examples of Order Download Messages – HL7

Host Query from GX to LIS, for sample ID “SID12345”:

```
MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240730120305||QBP^Z03^QBP_Z03|GXM-43241454842|P|2.5
QPD|Z03^HOST QUERY|GXM-75733348430||SID12345|
RCP|I
```

Order message from LIS to GX, with download code “HPVHR161845”

```
MSH|^~\&|LIS||GeneXpert PC^GeneXpert^6.4||||d3a93281-ec63-4fa3-b6fc-d8b890f61309|P|2.5|||
MSA|AA|GXM-75733348430|
QAK|GXM-75733348430|OK|Z03^HOST QUERY
QPD|Z03^HOST QUERY|GXM-75733348430||SID12345
PID|1|||^^^
ORC|NW|1|||20240103175859
OBR|1||HPVHR161845|||A
TQ1|||R
SPM|1|SID12345^||ORH|||P
```

Examples of Result Messages – HL7

Test Result: HPV 16: NEG; HPV 18_45: NEG; OTHER: NEG

```
MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163337||ORU^R32^ORU_R30|GXM-86431010868|P|2.5|||||
PID|1||||^M||||^M|||||
ORC|RE|1|||||20240809033904
OBR|1||HPVHR161845|||||F
TQ1|||||20240809033904|20240809043412|R
OBX|1|ST|HPVHR161845&HPV16&Xpert HPV v2 HR_16_18-45&1|HPV
16&|NEG^|||||F||||^LabTech||20991220~18002~4~615050~806750~Cepheid-PC
OBX|2|ST|HPVHR161845&HPV16&&|SAC&|PASS^||
OBX|3|ST|HPVHR161845&HPV16&&|SAC&Ct|^30.0||
OBX|4|ST|HPVHR161845&HPV16&&|SAC&EndPt|^63.0||
OBX|5|ST|HPVHR161845&HPV16&&|HPV 16&|NEG^||
OBX|6|ST|HPVHR161845&HPV16&&|HPV 16&Ct|^0.0||
OBX|7|ST|HPVHR161845&HPV16&&|HPV 16&EndPt|^0.0||
OBX|8|ST|HPVHR161845&HPV1845&Xpert HPV v2 HR_16_18-45&1|HPV
18_45&|NEG^|||||F||||^LabTech||20991220~18002~4~615050~806750~Cepheid-PC
OBX|9|ST|HPVHR161845&HPV1845&&|SAC&|PASS^||
OBX|10|ST|HPVHR161845&HPV1845&&|SAC&Ct|^30.0||
OBX|11|ST|HPVHR161845&HPV1845&&|SAC&EndPt|^63.0||
OBX|12|ST|HPVHR161845&HPV1845&&|HPV 18_45&|NEG^||
OBX|13|ST|HPVHR161845&HPV1845&&|HPV 18_45&Ct|^0.0||
OBX|14|ST|HPVHR161845&HPV1845&&|HPV 18_45&EndPt|^0.0||
OBX|15|ST|HPVHR161845&OTHER&Xpert HPV v2 HR_16_18-45&1|OTHER HR
HPV&|NEG^|||||F||||^LabTech||20991220~18002~4~615050~806750~Cepheid-PC
OBX|16|ST|HPVHR161845&OTHER&&|SAC&|PASS^||
OBX|17|ST|HPVHR161845&OTHER&&|SAC&Ct|^30.0||
OBX|18|ST|HPVHR161845&OTHER&&|SAC&EndPt|^63.0||
OBX|19|ST|HPVHR161845&OTHER&&|P3&|NEG^||
OBX|20|ST|HPVHR161845&OTHER&&|P3&Ct|^0.0||
OBX|21|ST|HPVHR161845&OTHER&&|P3&EndPt|^0.0||
```

OBX|22|ST|HPVHR161845&OTHER&&|P4&|NEG^||
OBX|23|ST|HPVHR161845&OTHER&&|P4&Ct|^0.0||
OBX|24|ST|HPVHR161845&OTHER&&|P4&EndPt|^2.0||
OBX|25|ST|HPVHR161845&OTHER&&|P5&|NEG^||
OBX|26|ST|HPVHR161845&OTHER&&|P5&Ct|^0.0||
OBX|27|ST|HPVHR161845&OTHER&&|P5&EndPt|^0.0||
SPM|1|HPV_v2_NEG^||ORH|||||P

Test Result: HPV 16: POS; HPV 18_45: POS; OTHER: POS

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163336||ORU^R32^ORU_R30|GXM-65086631616|P|2.5|||||||
PID|1||||^|||||^|||||
ORC|RE|1|||||20240809034822
OBR|1||HPVHR161845|||||||F
TQ1|||||20240809034822|20240809044342|R
**OBX|1|ST|HPVHR161845&HPV16&Xpert HPV v2 HR_16_18-45&1|HPV
16&|POS^|||||F|||||^LabTech||20991220~18002~3~210045557~821122~Cepheid-PC**
OBX|2|ST|HPVHR161845&HPV16&&|SAC&|NA^||
OBX|3|ST|HPVHR161845&HPV16&&|SAC&Ct|^29.5||
OBX|4|ST|HPVHR161845&HPV16&&|SAC&EndPt|^56.0||
OBX|5|ST|HPVHR161845&HPV16&&|HPV 16&|POS^||
OBX|6|ST|HPVHR161845&HPV16&&|HPV 16&Ct|^26.9||
OBX|7|ST|HPVHR161845&HPV16&&|HPV 16&EndPt|^435.0||
**OBX|8|ST|HPVHR161845&HPV1845&Xpert HPV v2 HR_16_18-45&1|HPV
18_45&|POS^|||||F|||||^LabTech||20991220~18002~3~210045557~821122~Cepheid-PC**
OBX|9|ST|HPVHR161845&HPV1845&&|SAC&|NA^||
OBX|10|ST|HPVHR161845&HPV1845&&|SAC&Ct|^29.5||
OBX|11|ST|HPVHR161845&HPV1845&&|SAC&EndPt|^56.0||
OBX|12|ST|HPVHR161845&HPV1845&&|HPV 18_45&|POS^||
OBX|13|ST|HPVHR161845&HPV1845&&|HPV 18_45&Ct|^28.6||
OBX|14|ST|HPVHR161845&HPV1845&&|HPV 18_45&EndPt|^224.0||
**OBX|15|ST|HPVHR161845&OTHER&Xpert HPV v2 HR_16_18-45&1|OTHER HR
HPV&|POS^|||||F|||||^LabTech||20991220~18002~3~210045557~821122~Cepheid-PC**

OBX|16|ST|HPVHR161845&OTHER&&|SAC&|NA^||
OBX|17|ST|HPVHR161845&OTHER&&|SAC&Ct|^29.5||
OBX|18|ST|HPVHR161845&OTHER&&|SAC&EndPt|^56.0||
OBX|19|ST|HPVHR161845&OTHER&&|P3&|POS^||
OBX|20|ST|HPVHR161845&OTHER&&|P3&Ct|^26.9||
OBX|21|ST|HPVHR161845&OTHER&&|P3&EndPt|^200.0||
OBX|22|ST|HPVHR161845&OTHER&&|P4&|POS^||
OBX|23|ST|HPVHR161845&OTHER&&|P4&Ct|^26.7||
OBX|24|ST|HPVHR161845&OTHER&&|P4&EndPt|^306.0||
OBX|25|ST|HPVHR161845&OTHER&&|P5&|POS^||
OBX|26|ST|HPVHR161845&OTHER&&|P5&Ct|^29.7||
OBX|27|ST|HPVHR161845&OTHER&&|P5&EndPt|^167.0||
SPM|1|HPV_v2_POS^||ORH|||||P

Test Result: INVALID

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163335||ORU^R32^ORU_R30|GXM-04304061721|P|2.5|||||||
PID|1||||^^^||||^^^|||||||
ORC|RE|1|||||20240809034940
OBR|1||HPVHR161845|||||||||||||||F
TQ1|||||20240809034940|20240809044459|R
**OBX|1|ST|HPVHR161845&HPV16&Xpert HPV v2 HR_16_18-45&1|HPV
16&|INVALID^|||||F|||||^LabTech||20991220~18002~9~210052907~821122~Cepheid-PC**
OBX|2|ST|HPVHR161845&HPV16&&|SAC&|FAIL^||
OBX|3|ST|HPVHR161845&HPV16&&|SAC&Ct|^0.0||
OBX|4|ST|HPVHR161845&HPV16&&|SAC&EndPt|^0.0||
OBX|5|ST|HPVHR161845&HPV16&&|HPV 16&|INVALID^||
OBX|6|ST|HPVHR161845&HPV16&&|HPV 16&Ct|^0.0||
OBX|7|ST|HPVHR161845&HPV16&&|HPV 16&EndPt|^0.0||
**OBX|8|ST|HPVHR161845&HPV1845&Xpert HPV v2 HR_16_18-45&1|HPV
18_45&|INVALID^|||||F|||||^LabTech||20991220~18002~9~210052907~821122~Cepheid-PC**
OBX|9|ST|HPVHR161845&HPV1845&&|SAC&|FAIL^||
OBX|10|ST|HPVHR161845&HPV1845&&|SAC&Ct|^0.0||

OBX|11|ST|HPVHR161845&HPV1845&&|SAC&EndPt|^0.0||
OBX|12|ST|HPVHR161845&HPV1845&&|HPV_18_45&|INVALID^||
OBX|13|ST|HPVHR161845&HPV1845&&|HPV_18_45&Ct|^0.0||
OBX|14|ST|HPVHR161845&HPV1845&&|HPV_18_45&EndPt|^0.0||
OBX|15|ST|HPVHR161845&OTHER&Xpert HPV v2 HR_16_18-45&1|OTHER HR
HPV&|INVALID^|||||F|||||^LabTech||20991220~18002~9~210052907~821122~Cepheid-PC
OBX|16|ST|HPVHR161845&OTHER&&|SAC&|FAIL^||
OBX|17|ST|HPVHR161845&OTHER&&|SAC&Ct|^0.0||
OBX|18|ST|HPVHR161845&OTHER&&|SAC&EndPt|^0.0||
OBX|19|ST|HPVHR161845&OTHER&&|P3&|INVALID^||
OBX|20|ST|HPVHR161845&OTHER&&|P3&Ct|^0.0||
OBX|21|ST|HPVHR161845&OTHER&&|P3&EndPt|^-1.0||
OBX|22|ST|HPVHR161845&OTHER&&|P4&|INVALID^||
OBX|23|ST|HPVHR161845&OTHER&&|P4&Ct|^0.0||
OBX|24|ST|HPVHR161845&OTHER&&|P4&EndPt|^-2.0||
OBX|25|ST|HPVHR161845&OTHER&&|P5&|INVALID^||
OBX|26|ST|HPVHR161845&OTHER&&|P5&Ct|^0.0||
OBX|27|ST|HPVHR161845&OTHER&&|P5&EndPt|^0.0||
SPM|1|HPV_v2_INV^||ORH|||||P

Test Result: ERROR

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163331||ORU^R32^ORU_R30|GXM-72504778252|P|2.5|||||||
PID|1||||^||||||^|||||||
ORC|RE|1|||||20240809041752
OBR|1||HPVHR161845|||||||F
TQ1|||||20240809041752|20240809042846|R

**OBX|1|ST|HPVHR161845&HPV16&Xpert HPV v2 HR_16_18-45&1|HPV
16&|ERROR^|||||F||||^LabTech||20991220~18002~19~616829~821122~Cepheid-PC**

NTE|1|L|Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 22 for reading number 2 was below the minimum of 31^20240809042820

NTE|2|L|Error^5007^Post-run analysis error^Error 5007: [HPV 16] probe check failed. Probe check value of 23 for reading number 2 was below the minimum of 34^20240809042820

NTE|3|L|Error^5007^Post-run analysis error^Error 5007: [HPV 18_45] probe check failed. Probe check value of 22 for reading number 2 was below the minimum of 30^20240809042820

NTE|4|L|Error^5007^Post-run analysis error^Error 5007: [P4] probe check failed. Probe check value of 25 for reading number 2 was below the minimum of 33^20240809042820

NTE|5|L|Error^5007^Post-run analysis error^Error 5007: [P5] probe check failed. Probe check value of 49 for reading number 2 was below the minimum of 53^20240809042820

OBX|2|ST|HPVHR161845&HPV16&&|SAC&|NO RESULT^||

OBX|3|ST|HPVHR161845&HPV16&&|SAC&Ct|^0.0||

OBX|4|ST|HPVHR161845&HPV16&&|SAC&EndPt|^0.0||

OBX|5|ST|HPVHR161845&HPV16&&|HPV 16&|NO RESULT^||

OBX|6|ST|HPVHR161845&HPV16&&|HPV 16&Ct|^0.0||

OBX|7|ST|HPVHR161845&HPV16&&|HPV 16&EndPt|^0.0||

**OBX|8|ST|HPVHR161845&HPV1845&Xpert HPV v2 HR_16_18-45&1|HPV
18_45&|ERROR^|||||F||||^LabTech||20991220~18002~19~616829~821122~Cepheid-PC**

NTE|1|L|Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 22 for reading number 2 was below the minimum of 31^20240809042820

NTE|2|L|Error^5007^Post-run analysis error^Error 5007: [HPV 16] probe check failed. Probe check value of 23 for reading number 2 was below the minimum of 34^20240809042820

NTE|3|L|Error^5007^Post-run analysis error^Error 5007: [HPV 18_45] probe check failed. Probe check value of 22 for reading number 2 was below the minimum of 30^20240809042820

NTE|4|L|Error^5007^Post-run analysis error^Error 5007: [P4] probe check failed. Probe check value of 25 for reading number 2 was below the minimum of 33^20240809042820

NTE|5|L|Error^5007^Post-run analysis error^Error 5007: [P5] probe check failed. Probe check value of 49 for reading number 2 was below the minimum of 53^20240809042820

OBX|9|ST|HPVHR161845&HPV1845&&|SAC&|NO RESULT^|

OBX|10|ST|HPVHR161845&HPV1845&&|SAC&Ct|^0.0|

OBX|11|ST|HPVHR161845&HPV1845&&|SAC&EndPt|^0.0|

OBX|12|ST|HPVHR161845&HPV1845&&|HPV 18_45&|NO RESULT^|

OBX|13|ST|HPVHR161845&HPV1845&&|HPV 18_45&Ct|^0.0|

OBX|14|ST|HPVHR161845&HPV1845&&|HPV 18_45&EndPt|^0.0|

OBX|15|ST|HPVHR161845&OTHER&Xpert HPV v2 HR_16_18-45&1|OTHER HR HPV&|ERROR^|F||||^LabTech||20991220~18002~19~616829~821122~Cepheid-PC

NTE|1|L|Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 22 for reading number 2 was below the minimum of 31^20240809042820

NTE|2|L|Error^5007^Post-run analysis error^Error 5007: [HPV 16] probe check failed. Probe check value of 23 for reading number 2 was below the minimum of 34^20240809042820

NTE|3|L|Error^5007^Post-run analysis error^Error 5007: [HPV 18_45] probe check failed. Probe check value of 22 for reading number 2 was below the minimum of 30^20240809042820

NTE|4|L|Error^5007^Post-run analysis error^Error 5007: [P4] probe check failed. Probe check value of 25 for reading number 2 was below the minimum of 33^20240809042820

NTE|5|L|Error^5007^Post-run analysis error^Error 5007: [P5] probe check failed. Probe check value of 49 for reading number 2 was below the minimum of 53^20240809042820

OBX|16|ST|HPVHR161845&OTHER&&|SAC&|NO RESULT^|

OBX|17|ST|HPVHR161845&OTHER&&|SAC&Ct|^0.0|

OBX|18|ST|HPVHR161845&OTHER&&|SAC&EndPt|^0.0|

OBX|19|ST|HPVHR161845&OTHER&&|P3&|NO RESULT^|

OBX|20|ST|HPVHR161845&OTHER&&|P3&Ct|^0.0|

OBX|21|ST|HPVHR161845&OTHER&&|P3&EndPt|^0.0|

OBX|22|ST|HPVHR161845&OTHER&&|P4&|NO RESULT^|

OBX|23|ST|HPVHR161845&OTHER&&|P4&Ct|^0.0|

OBX|24|ST|HPVHR161845&OTHER&&|P4&EndPt|^0.0|

OBX|25|ST|HPVHR161845&OTHER&&|P5&|NO RESULT^|

OBX|26|ST|HPVHR161845&OTHER&&|P5&Ct|^0.0|

OBX|27|ST|HPVHR161845&OTHER&&|P5&EndPt|^0.0||
SPM|1|HPV_v2_ERROR^||ORH|||||P

Test Result: NO RESULT

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163332||ORU^R32^ORU_R30|GXM-66032645725|P|2.5|||||

PID|1||||^|||||^|||||

ORC|RE|1|||||20240809040416

OBR|1||HPVHR161845|||||F

TQ1|||||20240809040416|20240809040510|R

OBX|1|ST|HPVHR161845&HPV16&&Xpert HPV v2 HR_16_18-45&1|HPV 16&|NO

RESULT^|||||F|||||^LabTech||20991220~18002~12~616829~821122~Cepheid-PC

OBX|2|ST|HPVHR161845&HPV16&&|SAC&|NO RESULT^||

OBX|3|ST|HPVHR161845&HPV16&&|SAC&Ct|^0.0||

OBX|4|ST|HPVHR161845&HPV16&&|SAC&EndPt|^0.0||

OBX|5|ST|HPVHR161845&HPV16&&|HPV 16&|NO RESULT^||

OBX|6|ST|HPVHR161845&HPV16&&|HPV 16&Ct|^0.0||

OBX|7|ST|HPVHR161845&HPV16&&|HPV 16&EndPt|^0.0||

OBX|8|ST|HPVHR161845&HPV1845&&Xpert HPV v2 HR_16_18-45&1|HPV 18_45&|NO

RESULT^|||||F|||||^LabTech||20991220~18002~12~616829~821122~Cepheid-PC

OBX|9|ST|HPVHR161845&HPV1845&&|SAC&|NO RESULT^||

OBX|10|ST|HPVHR161845&HPV1845&&|SAC&Ct|^0.0||

OBX|11|ST|HPVHR161845&HPV1845&&|SAC&EndPt|^0.0||

OBX|12|ST|HPVHR161845&HPV1845&&|HPV 18_45&|NO RESULT^||

OBX|13|ST|HPVHR161845&HPV1845&&|HPV 18_45&Ct|^0.0||

OBX|14|ST|HPVHR161845&HPV1845&&|HPV 18_45&EndPt|^0.0||

OBX|15|ST|HPVHR161845&OTHER&&Xpert HPV v2 HR_16_18-45&1|OTHER HR HPV&|NO

RESULT^|||||F|||||^LabTech||20991220~18002~12~616829~821122~Cepheid-PC

OBX|16|ST|HPVHR161845&OTHER&&|SAC&|NO RESULT^||

OBX|17|ST|HPVHR161845&OTHER&&|SAC&Ct|^0.0||

OBX|18|ST|HPVHR161845&OTHER&&|SAC&EndPt|^0.0||

OBX|19|ST|HPVHR161845&OTHER&&|P3&|NO RESULT^||

OBX|20|ST|HPVHR161845&OTHER&&|P3&Ct|^0.0||

OBX|21|ST|HPVHR161845&OTHER&&|P3&EndPt|^0.0||
OBX|22|ST|HPVHR161845&OTHER&&|P4&|NO RESULT^||
OBX|23|ST|HPVHR161845&OTHER&&|P4&Ct|^0.0||
OBX|24|ST|HPVHR161845&OTHER&&|P4&EndPt|^0.0||
OBX|25|ST|HPVHR161845&OTHER&&|P5&|NO RESULT^||
OBX|26|ST|HPVHR161845&OTHER&&|P5&Ct|^0.0||
OBX|27|ST|HPVHR161845&OTHER&&|P5&EndPt|^0.0||
SPM|1|HPV_v2_NO RES^||ORH|||||P

2.1.2 Example HL7 Messages: Xpert HPV v2 16_18-45

Examples of Order Download Messages – HL7

Host Query from GX to LIS, for sample ID “SID12345”:

```
MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240730120305||QBP^Z03^QBP_Z03|GXM-43241454842|P|2.5
QPD|Z03^HOST QUERY|GXM-75733348430||SID12345|
RCP|I
```

Order message from LIS to GX, with download code “HPV161845”:

```
MSH|^~\&|LIS||GeneXpert PC^GeneXpert^6.4||||d3a93281-ec63-4fa3-b6fc-d8b890f61309|P|2.5|||
MSA|AA|GXM-75733348430|
QAK|GXM-75733348430|OK|Z03^HOST QUERY
QPD|Z03^HOST QUERY|GXM-75733348430||SID12345
PID|1||||^
ORC|NW|1|||||20240103175859
OBR|1|||HPV161845|||||A
TQ1||||||R
SPM|1|SID12345^|ORH|||||P
```

Examples of Result Messages - HL7

Test Result: HPV 16: NEG; HPV 18_45: NEG

```
MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163325||ORU^R32^ORU_R30|GXM-28371167188|P|2.5|||||
PID|1||||^|||||^|||||
ORC|RE|1|||||20240809034112
OBR|1||HPV161845|||||F
TQ1|||||20240809034112|20240809043628|R
OBX|1|ST|HPV161845&HPV16&Xpert HPV v2 16_18-45&1|HPV
16&|NEG^|||||F|||||^LabTech||20991220~18002~6~797246~806750~Cepheid-PC
OBX|2|ST|HPV161845&HPV16&&|SAC&|PASS^|
OBX|3|ST|HPV161845&HPV16&&|SAC&Ct|^30.2|
OBX|4|ST|HPV161845&HPV16&&|SAC&EndPt|^59.0|
OBX|5|ST|HPV161845&HPV16&&|HPV 16&|NEG^|
OBX|6|ST|HPV161845&HPV16&&|HPV 16&Ct|^0.0|
OBX|7|ST|HPV161845&HPV16&&|HPV 16&EndPt|^0.0|
OBX|8|ST|HPV161845&HPV1845&Xpert HPV v2 16_18-45&1|HPV
18_45&|NEG^|||||F|||||^LabTech||20991220~18002~6~797246~806750~Cepheid-PC
OBX|9|ST|HPV161845&HPV1845&&|SAC&|PASS^|
OBX|10|ST|HPV161845&HPV1845&&|SAC&Ct|^30.2|
OBX|11|ST|HPV161845&HPV1845&&|SAC&EndPt|^59.0|
OBX|12|ST|HPV161845&HPV1845&&|HPV 18_45&|NEG^|
OBX|13|ST|HPV161845&HPV1845&&|HPV 18_45&Ct|^0.0|
OBX|14|ST|HPV161845&HPV1845&&|HPV 18_45&EndPt|^0.0|
SPM|1|HPV_v2_NEG^||ORH|||||P
```

Test Result: HPV 16: POS; HPV 18_45: POS

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163324||ORU^R32^ORU_R30|GXM-18656841628|P|2.5|||||||
PID|1||||^||||||^|||||||
ORC|RE|1|||||20240809034911
OBR|1||HPV161845|||||||F
TQ1|||||20240809034911|20240809044505|R
**OBX|1|ST|HPV161845&HPV16&Xpert HPV v2 16_18-45&1|HPV
16&|POS^|||||F|||||^LabTech||20991220~18002~1~210053135~821122~Cepheid-PC**
OBX|2|ST|HPV161845&HPV16&&|SAC&|NA^||
OBX|3|ST|HPV161845&HPV16&&|SAC&Ct|^29.8||
OBX|4|ST|HPV161845&HPV16&&|SAC&EndPt|^58.0||
OBX|5|ST|HPV161845&HPV16&&|HPV 16&|POS^||
OBX|6|ST|HPV161845&HPV16&&|HPV 16&Ct|^27.4||
OBX|7|ST|HPV161845&HPV16&&|HPV 16&EndPt|^432.0||
**OBX|8|ST|HPV161845&HPV1845&Xpert HPV v2 16_18-45&1|HPV
18_45&|POS^|||||F|||||^LabTech||20991220~18002~1~210053135~821122~Cepheid-PC**
OBX|9|ST|HPV161845&HPV1845&&|SAC&|NA^||
OBX|10|ST|HPV161845&HPV1845&&|SAC&Ct|^29.8||
OBX|11|ST|HPV161845&HPV1845&&|SAC&EndPt|^58.0||
OBX|12|ST|HPV161845&HPV1845&&|HPV 18_45&|POS^||
OBX|13|ST|HPV161845&HPV1845&&|HPV 18_45&Ct|^29.2||
OBX|14|ST|HPV161845&HPV1845&&|HPV 18_45&EndPt|^213.0||
SPM|1|HPV_v2_POS^||ORH|||||P

Test Result: INVALID

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163323||ORU^R32^ORU_R30|GXM-63875124318|P|2.5|||||||
PID|1||||^||||||^|||||||
ORC|RE|1|||||20240809035028
OBR|1||HPV161845|||||||F
TQ1|||||20240809035028|20240809044549|R
**OBX|1|ST|HPV161845&HPV16&Xpert HPV v2 16_18-45&1|HPV
16&|INVALID^|||||F||||^LabTech||20991220~18002~7~210053083~821122~Cepheid-PC**
OBX|2|ST|HPV161845&HPV16&&|SAC&|FAIL^||
OBX|3|ST|HPV161845&HPV16&&|SAC&Ct|^0.0||
OBX|4|ST|HPV161845&HPV16&&|SAC&EndPt|^0.0||
OBX|5|ST|HPV161845&HPV16&&|HPV 16&|INVALID^||
OBX|6|ST|HPV161845&HPV16&&|HPV 16&Ct|^0.0||
OBX|7|ST|HPV161845&HPV16&&|HPV 16&EndPt|^1.0||
**OBX|8|ST|HPV161845&HPV1845&Xpert HPV v2 16_18-45&1|HPV
18_45&|INVALID^|||||F||||^LabTech||20991220~18002~7~210053083~821122~Cepheid-PC**
OBX|9|ST|HPV161845&HPV1845&&|SAC&|FAIL^||
OBX|10|ST|HPV161845&HPV1845&&|SAC&Ct|^0.0||
OBX|11|ST|HPV161845&HPV1845&&|SAC&EndPt|^0.0||
OBX|12|ST|HPV161845&HPV1845&&|HPV 18_45&|INVALID^||
OBX|13|ST|HPV161845&HPV1845&&|HPV 18_45&Ct|^0.0||
OBX|14|ST|HPV161845&HPV1845&&|HPV 18_45&EndPt|^0.0||
SPM|1|HPV_v2_INV^||ORH|||||P

Test Result: ERROR

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163321||ORU^R32^ORU_R30|GXM-35304568202|P|2.5|||||||

PID|1||||^||||||^|||||||

ORC|RE|1|||||20240809035238

OBR|1||HPV161845|||||||F

TQ1|||||20240809035238|20240809040335|R

OBX|1|ST|HPV161845&HPV16&Xpert HPV v2 16_18-45&1|HPV
16&|ERROR^|||||F|||||^LabTech||20991220~18002~20~700920~821122~Cepheid-PC

NTE|1|L|Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 20 for reading number 2 was below the minimum of 31^20240809040307

OBX|2|ST|HPV161845&HPV16&&|SAC&|NO RESULT^||

OBX|3|ST|HPV161845&HPV16&&|SAC&Ct|^0.0||

OBX|4|ST|HPV161845&HPV16&&|SAC&EndPt|^0.0||

OBX|5|ST|HPV161845&HPV16&&|HPV 16&|NO RESULT^||

OBX|6|ST|HPV161845&HPV16&&|HPV 16&Ct|^0.0||

OBX|7|ST|HPV161845&HPV16&&|HPV 16&EndPt|^0.0||

OBX|8|ST|HPV161845&HPV1845&Xpert HPV v2 16_18-45&1|HPV
18_45&|ERROR^|||||F|||||^LabTech||20991220~18002~20~700920~821122~Cepheid-PC

NTE|1|L|Error^5007^Post-run analysis error^Error 5007: [SAC] probe check failed. Probe check value of 20 for reading number 2 was below the minimum of 31^20240809040307

OBX|9|ST|HPV161845&HPV1845&&|SAC&|NO RESULT^||

OBX|10|ST|HPV161845&HPV1845&&|SAC&Ct|^0.0||

OBX|11|ST|HPV161845&HPV1845&&|SAC&EndPt|^0.0||

OBX|12|ST|HPV161845&HPV1845&&|HPV 18_45&|NO RESULT^||

OBX|13|ST|HPV161845&HPV1845&&|HPV 18_45&Ct|^0.0||

OBX|14|ST|HPV161845&HPV1845&&|HPV 18_45&EndPt|^0.0||

SPM|1|HPV_v2_ERROR^||ORH|||||P

Test Result: NO RESULT

MSH|^~\&|GeneXpert PC^GeneXpert^6.4||LIS||20240809163320||ORU^R32^ORU_R30|GXM-77177224665|P|2.5|||||||
PID|1||||^||||||^|||||||
ORC|RE|1|||||20240809041113
OBR|1||HPV161845|||||||F
TQ1|||||20240809041113|20240809041208|R
**OBX|1|ST|HPV161845&HPV16&Xpert HPV v2 16_18-45&1|HPV 16&|NO
RESULT^|||||F|||||^LabTech||20991220~18002~14~616829~821122~Cepheid-0F11396**
OBX|2|ST|HPV161845&HPV16&&|SAC&|NO RESULT^||
OBX|3|ST|HPV161845&HPV16&&|SAC&Ct|^0.0||
OBX|4|ST|HPV161845&HPV16&&|SAC&EndPt|^0.0||
OBX|5|ST|HPV161845&HPV16&&|HPV 16&|NO RESULT^||
OBX|6|ST|HPV161845&HPV16&&|HPV 16&Ct|^0.0||
OBX|7|ST|HPV161845&HPV16&&|HPV 16&EndPt|^0.0||
**OBX|8|ST|HPV161845&HPV1845&Xpert HPV v2 16_18-45&1|HPV 18_45&|NO
RESULT^|||||F|||||^LabTech||20991220~18002~14~616829~821122~Cepheid-PC**
OBX|9|ST|HPV161845&HPV1845&&|SAC&|NO RESULT^||
OBX|10|ST|HPV161845&HPV1845&&|SAC&Ct|^0.0||
OBX|11|ST|HPV161845&HPV1845&&|SAC&EndPt|^0.0||
OBX|12|ST|HPV161845&HPV1845&&|HPV 18_45&|NO RESULT^||
OBX|13|ST|HPV161845&HPV1845&&|HPV 18_45&Ct|^0.0||
OBX|14|ST|HPV161845&HPV1845&&|HPV 18_45&EndPt|^0.0||
SPM|1|HPV_v2_NO RES^||ORH|||||P