

Overview

Useful For

Detection of human papillomavirus from low-risk genotypes (6, 11)

Method Name

In Situ Hybridization (ISH)

NY State Available

Yes

Specimen

Specimen Type

Special

Shipping Instructions

Attach the green "Attention Pathology" address label (T498) to the outside of the transport container before putting into the courier mailer.

Necessary Information

A pathology/diagnostic report and a brief history are required.

Specimen Required

**Supplies:** Pathology Packaging Kit (T554)

**Specimen Type:** Tissue

**Container/Tube:** Immunostain Technical Only Envelope

**Collection Instructions:** Formalin-fixed, paraffin-embedded tissue block; or 5 unstained glass, "positively charged" slides with 4-microns, formalin-fixed, paraffin-embedded tissue

Forms

If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:

[-Oncology Test Request](#) (T729)

[-Immunohistochemical \(IHC\)/In Situ Hybridization \(ISH\) Stains Request](#) (T763)

Reject Due To

|                                      |        |
|--------------------------------------|--------|
| Wet/frozen tissue<br>Cytology smears | Reject |
|--------------------------------------|--------|

|  |  |
|--|--|
| Nonformalin<br>fixed tissue<br>Nonparaffin<br>embedded<br>tissue<br>Noncharged<br>slides<br>ProbeOn slides |  |
|--|--|

Specimen Stability Information

| Specimen Type | Temperature         | Time | Special Container |
|---------------|---------------------|------|-------------------|
| Special       | Ambient (preferred) |      |                   |
|               | Refrigerated        |      |                   |

Clinical & Interpretive

Clinical Information

Human papillomavirus infections with low-risk genotypes (6, 11) can cause benign hyperplasia, such as condylomas and papillomas.

Reference Values

[Results are reported as positive or negative for types 6 and 11.](#)

Interpretation

This test, when not accompanied by a pathology consultation request, will be answered as either positive or negative. If additional interpretation or analysis is needed, request PATHC / Pathology Consultation along with this test.

Cautions

Age of a cut paraffin section can affect staining quality. Stability thresholds vary widely among published literature. Best practice is for paraffin sections to be cut within 6 weeks.

Clinical Reference

1. Lindemann ML, Dominguez MJ, de Antonio JC, et al. Analytical comparison of the cobas HPV test with hybrid capture 2 for the detection of high-risk HPV genotypes. J Mol Diagn. 2012;14(1):65-70

2. Bishop JA, Ma XJ, Wang H, et al. Detection of transcriptionally active high-risk HPV in patients with head and neck squamous cell carcinoma as visualized by a novel E6/E7 mRNA in situ hybridization method. Am J Surg Pathol. 2012;36(12):1874-1882

3. Mirghani H, Casiraghi O, Guerlain J, et al. Diagnosis of HPV driven oropharyngeal cancers: Comparing p16 based algorithms with the RNAscope HPV-test. Oral oncology. 2016;62:101-108

4. Magaki S, Hojat SA, Wei B, So A, Yong WH. An introduction to the performance of immunohistochemistry. Methods Mol Biol. 2019;1897:289-298. doi:10.1007/978-1-4939-8935-5\_25

Performance

Method Description

In situ hybridization on sections of paraffin-embedded tissue.(Unpublished Mayo method)

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

5 to 7 days

Specimen Retention Time

Until staining is complete.

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact [Customer Service](#).

Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

88365-Primary  
88364-If additional in situ hybridization

LOINC® Information

| Test ID | Test Order Name  | Order LOINC® Value |
|---------|------------------|--------------------|
| HPVLR   | HPV Low-Risk ISH | In Process         |

| Result ID | Test Result Name | Result LOINC® Value |
|-----------|------------------|---------------------|
|           |                  |                     |

Test Definition: HPVLR

Human Papillomavirus (HPV) Low Risk, In Situ  
Hybridization

|       |                                    |                 |
|-------|------------------------------------|-----------------|
| 71204 | Interpretation                     | 50595-8         |
| 71205 | Participated in the Interpretation | No LOINC Needed |
| 71206 | Report electronically signed by    | 19139-5         |
| 71208 | Material Received                  | 81178-6         |
| 71595 | Disclaimer                         | 62364-5         |
| 72113 | Case Number                        | 80398-1         |