

Respiratory Syncytial Virus (RSV) In Situ Hybridization, Technical Component Only

### **Overview**

### **Useful For**

Aids in the identification of respiratory syncytial viral infection

### **Reflex Tests**

| Test Id | Reporting Name            | Available Separately | Always Performed |
|---------|---------------------------|----------------------|------------------|
| ISTOI   | ISH Initial, Tech Only    | No                   | No               |
| ISTOA   | ISH Additional, Tech Only | No                   | No               |

### **Testing Algorithm**

For the initial technical component only in situ hybridization (ISH) stain performed, the appropriate bill only test ID will be reflexed and charged (ISTOI). For each additional technical component only ISH stain performed, an additional bill only test ID will be reflexed and charged (ISTOA).

#### **Method Name**

In Situ Hybridization (ISH)

### **NY State Available**

Yes

## **Specimen**

## **Specimen Type**

**TECHONLY** 

## **Ordering Guidance**

This test includes only technical performance of the stain (no pathologist interpretation is performed). If diagnostic consultation by a pathologist is required order PATHC / Pathology Consultation.

### **Shipping Instructions**

Attach the green "Attention Pathology" address label (T498) and the pink Immunostain Technical Only label included in the kit to the outside of the transport container.

## **Specimen Required**

**Specimen Type:** Tissue

**Supplies:** Immunostain Technical Only Envelope (T693) **Container/Tube:** Immunostain Technical Only Envelope

**Preferred:** 



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-Formalin-fixed, paraffin-embedded tissue block OR

-4 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick

Acceptable: None

### **Digital Image Access**

- 1. Information on accessing digital images of immunohistochemical (IHC) stains and the manual requisition form can be accessed through this website: <a href="https://news.mayocliniclabs.com/pathology/digital-imaging/">https://news.mayocliniclabs.com/pathology/digital-imaging/</a>
- 2. Clients ordering stains using a manual requisition form will not have access to digital images.
- 3. Clients wishing to access digital images must place the order for IHC stains electronically. Information regarding digital imaging can be accessed through this website: <a href="https://news.mayocliniclabs.com/pathology/digital-imaging/#section3">https://news.mayocliniclabs.com/pathology/digital-imaging/#section3</a>

#### **Forms**

If not ordering electronically, complete, print, and send an <u>Immunohistochemical (IHC)/In Situ Hybridization (ISH) Stains</u>
<u>Request</u> (T763) with the specimen.

## Reject Due To

| Wet/frozen     | Reject |
|----------------|--------|
| tissue         |        |
| Cytology       |        |
| smears         |        |
| Nonformalin    |        |
| fixed tissue   |        |
| Nonparaffin    |        |
| embedded       |        |
| tissue         |        |
| Noncharged     |        |
| slides         |        |
| ProbeOn slides |        |
| Snowcoat       |        |
| slides         |        |

## **Specimen Stability Information**

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

## **Clinical & Interpretive**

### **Clinical Information**

Respiratory syncytial virus (RSV) causes a wheezing illness that especially affects young children. The virus infects



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alveolar pneumocytes and induces fusion of multiple cells, creating a "syncytial" multinucleated cell. This RSV probe sequence was designed to identify subgroups RSV-A and RSV-B. It has been verified to not cross react with the following viruses in formalin-fixed, paraffin-embedded tissue: adenovirus, BK virus, cytomegalovirus, Epstein-Barr virus, hepatitis C virus, human herpes virus, type 8, human papillomavirus types 6, 11, 16, E6/E7, *Helicobacter pylori*, herpes simplex virus types 1 and 2, JC virus, parvovirus, toxoplasma, and varicella-zoster viruses.

### Interpretation

This test does not include pathologist interpretation, only technical performance of the stain. If interpretation is required, order PATHC / Pathology Consultation for a full diagnostic evaluation or second opinion of the case.

The positive and negative controls are verified as showing appropriate immunoreactivity.

Interpretation of this test should be performed in the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

### **Cautions**

Age of a cut paraffin section can affect immunoreactivity. Stability thresholds vary widely among published literature and are antigen dependent. Best practice is for paraffin sections to be cut within 6 weeks.

The charge of glass slides can be affected by environmental factors and subsequently may alter slide staining. Sending unsuitable glass slides can result in inconsistent staining due to poor slide surface chemistry.

Best practices for storage of positively charged slides:

- -Minimize time slides are stored after being unpackaged
- -Limit exposure to high humidity and heat
- -Minimize exposure to plastics

### **Clinical Reference**

- 1. Hall CB. Respiratory syncytial virus and parainfluenza virus. N Engl J Med. 2001;344(25):1917-1928
- 2. Essaidi-Laziosi M, Lyon M, Mamin A, Fernandes Rocha M, Kaiser L, Tapparel C. A new real-time RT-qPCR assay for the detection, subtyping and quantification of human respiratory syncytial viruses positive- and negative-sense RNAs. J Virol Methods. 2016;235:9-14
- 3. User manual: RNAscope 2.5 VS Assay for Ventana DISCOVER ULTRA System BROWN, Document Number 322200-USM\_ULT
- 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**



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No

### Day(s) Performed

Monday through Friday

### **Report Available**

1 to 3 days

## **Performing Laboratory Location**

Mayo Clinic Laboratories - Rochester Main Campus

#### Fees & Codes

### **Fees**

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

#### **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-TC, Primary 88364-TC, if additional ISH

### **LOINC®** Information

| Test ID   | Test Order Name                     | Order LOINC® Value   |
|-----------|-------------------------------------|----------------------|
| RSVAB     | Resp Syncytial Virus(RSV)ISH,T Only | Order only;no result |
|           |                                     |                      |
|           |                                     |                      |
| Result ID | Test Result Name                    | Result LOINC® Value  |