

**Immunoglobulin M (IgM) FITC**  
**Clone: Polyclonal**  
**Goat Anti-Human Polyclonal Antibody**

**PRODUCT INFORMATION:**      **PERFORMANCE CHARACTERISTICS:**  
FPS003-M 1ml Concentrated      **Localization:** Cytoplasm  
FPS003-M 0.5ml Concentrated      **Incubation:** 30-60 minutes

**INTENDED USE**

**For research use only**

This antibody is intended for use in Direct Immunofluorescence on Fresh frozen sections. Interpretation of any positive or negative staining must be complemented with the evaluation of proper known controls (Positive and Negative) and must be made within the context of the patient's clinical history and other diagnostic tests. A qualified and trained pathologist must perform evaluation of the test. This antibody is intended to be used after the primary diagnosis of tumor has been made by conventional histopathology using non-immunologic histochemical stains.

**SUMMARY AND EXPLANATION**

IgM forms polymers where multiple immunoglobulins are covalently linked together with disulfide bonds, normally as a pentamer or occasionally as a hexamer. It has a large molecular mass of approximately 900 kDa (in its pentamer form). In germline cells, the gene segment encoding the constant region of the heavy chain is positioned first among other constant region gene segments. For this reason, IgM is the first immunoglobulin expressed by mature B-cells. IgM antibody reacts with surface immunoglobulin IgM mu chains. IgM is one of the predominant surface immunoglobulins on B-lymphocytes, and is useful when identifying Leukemias, Plasmacytomas, and B-cell lineage derived Hodgkin's Lymphomas.

**PRINCIPLE OF THE PROCEDURE**

Immunofluorescence is an assay which is used primarily on biological samples and is classically defined as a procedure to detect antigens in cellular contexts using antibodies. The specificity of antibodies to their antigen is the base for immunofluorescence. The biological samples include tissue and cells. Immunofluorescence allows researchers to evaluate whether or not cells in a particular sample express the antigen in question. In cases where an immunopositive signal is found, immunofluorescence also allows researchers to determine which subcellular compartments are expressing the antigen. Immunofluorescence can be used on cultured cell lines, tissue sections, or individual cells. Each and every step involves precise time and optimal temperature and the results are interpreted using a fluorescent microscope using green filter by a qualified and trained pathologist.

**REAGENT PROVIDED**

**Concentrated format:** Antibody attached IgM is affinity purified tagged with FITC.  
**Recommended dilutions:** 1:20 – 1:50

The antibody dilution and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by individual laboratory.

**Species Reactivity:** Human

**STORAGE AND HANDLING**

**Storage Recommendations:** Store at 2-8°C in dark. When stored at the appropriate conditions, the antibody is stable until expiry. Do not use the antibody after expiration date provided on the vial in any condition.

The contents of the vial should be used within 9 months from the opening of the vial.

**SPECIMEN PREPARATION**

**Frozen sections and cell preparations:**

The antibody can be used on acetone-fixed frozen sections and acetone-fixed cell preparations.

**Preparation for Frozen Tissues IF Procedure:** Firstly, embed the specimen in OCT inside the cryostat and cut the sections at 5 microns. Place the section on a positively charged glass slide. Air dry for 30-60 minutes. Fix in 100% acetone for 10 minutes. Air dry for another 10 minutes.

**PRECAUTIONS**

1. This product should be used by qualified and trained professional users only
2. The product contains < 0.1% of sodium azide as preservative and is not classified hazardous, refer MSDS for further details
3. As with any product derived from biological sources, proper handling procedures should be used
4. Do not use reagents after expiration date
5. Use protective clothing and gloves, while handling reagents
6. All hazardous materials should be disposed according to local state and federal regulations
7. Avoid microbial contamination of reagents as it may lead to incorrect results

**STAINING PROCEDURE**

1. Rinse the slides in 3 changes wash buffer, preferably 1X Phosphate Buffered Saline (pH- 7.2) for 5 minutes each.
2. Drain and wipe off excess wash buffer and continue the rest of the protocol in dark.
3. Add the appropriate antibody and incubate the slides in dark for 30 minutes to 1 hour.
4. Drain off the excess antibody and wash the slides in 3 changes of wash buffer for 15 minutes each.
5. Mount the slides using immunofluorescence compatible mounting media and observe under fluorescent microscope.

**QUALITY CONTROL**

A positive and negative tissue control must be run with every staining procedure performed for monitoring the correct performance of processed tissue and test reagents. A negative tissue controls provide an indication of non-specific background staining. If the results are not expected in positive and negative controls the test must be considered invalid and entire procedure must be cross verified. Individual laboratory must establish their own quality control to validate the process and antibody when opened a vial.

**INTERPRETATION OF RESULTS**

Immunoglobulin M (IgM) stains the Cytoplasm. A qualified experienced/trained pathologist must interpret the results in the patient's sample along with the positive and negative controls.

**PERFORMANCE CHARACTERISTICS**

PathnSitu products will undergo a thorough quality control check before it is released to the market. The antibody showed consistent specific and sensitive staining on the multiple positive tissue controls tested, by inter run, intra run and lot based studies. The antibody is stable for the expiry mentioned on the labels which is determined by real time or accelerated methods.

**TROUBLESHOOTING**

1. Follow the antibody specific protocol recommendations according to data sheet provided
2. Tissue staining is dependent on the handling and processing of the tissue prior to staining. Improper sectioning, tissue handling, antibody freezing and thawing, washing, drying or contamination with other tissues or cells may produce artifacts, antibody trapping or inaccurate results
3. Do not allow the section to dry out during the entire IF process
4. If unusual results occur, contact PathnSitu's Technical Support at +91-40-2701 5544 or E-mail: [techsupport@pathnsitu.com](mailto:techsupport@pathnsitu.com)

**LIMITATIONS AND WARRANTY**

Authorized and skilled/trained personnel only may use the product. The clinical interpretation of any test results should be evaluated within the context of the patient's medical history and other diagnostic test results. A qualified trained pathologist must perform the evaluation of the test results. There are no warranties, expressed or implied, which extend beyond the description. PathnSitu is not liable for property damage, personal injury, time or effort on economic loss caused by this product.

**BIBLIOGRAPHY**

1. U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories. Supplement / Vol. 61, Jan.2012

**EXPLANATION OF SYMBOLS**

LOT- Lot number / Batch number



**RUO** Research use only



Storage limitation