

# Macrophage Primary Antibody

Clone: HAM-56 (Mouse Monoclonal)

Localization – cytoplasm

Host Species – Mouse

Ig Class – IgG1/K

## Intended Use

This antibody is designed for the specific localization of Macrophage in formalin-fixed, paraffin-embedded (FFPE) tissue sections.

## Storage & Handling

Store RTU Vial at 2-8°C. Fresh dilutions for concentrated antibodies, if required, should be prepared prior to use and are stable for up to one day at room temperature (20-26°C).

## Working Principle

IHC is a two-step process wherein the primary antibody binds to the antigen of interest and that binding is detected by a chromogen. The primary antibody may be used in IHC using manual techniques or any Automated Staining System. Positive and negative controls should always be run simultaneously with all patient specimens.

## Product Description

Macrophages represent a diverse population of mononuclear phagocytes residing in tissues, originating from hematopoietic stem cells within the bone marrow. These cells perform a broad spectrum of immune functions, including non-specific phagocytosis and pinocytosis, intracellular killing of pathogens, and the processing and presentation of antigens to both T and B lymphocytes. Additionally, macrophages secrete a wide array of bioactive molecules such as lysozyme, collagenases, complement proteins, coagulation factors, prostaglandins, leukotrienes, and immunoregulatory cytokines, including interferons and interleukin-1 (IL-1). The HAM-56 monoclonal antibody is specific for a subset of macrophages. It exhibits immunoreactivity with tingible body macrophages located in germinal centers of lymph nodes, interdigitating dendritic macrophages, and various tissue-resident macrophages, such as Kupffer cells in the liver and alveolar macrophages in the lung. In addition, HAM-56 stains a subpopulation of endothelial cells, particularly those lining capillaries and small-caliber blood vessels. While it binds to circulating monocytes, it does not exhibit cross-reactivity with B or T lymphocytes.

## Material Supplied

Macrophage antibody is affinity purified and diluted in PBS, pH 7.4, containing 1% BSA and 0.09% sodium azide.

## Material required But Not Supplied

- Xylene
- DI Water
- Control Tissues
- Isopropyl alcohol
- Antigen retrieval buffers
- Hematoxylin
- Positive charged slides
- Blocking Reagents
- Mounting media
- Wash Buffer
- Detection System
- Cover glass

## Working Reagent Procedure

- Ready-to-Use antibodies have been optimized for use with the recommended protocols and should not require further dilution.
- Concentrated antibodies must be diluted in accordance with the recommended protocol.

## Recommended Protocol

Refer the following table for the details on specific recommended protocol for this antibody. Tonsil, Lymph Node

<b>Control Tissue</b>	Human smooth muscle	<b>Antibody Incubation Time</b>	30-60 Minutes at RT
<b>Dilution factor</b>	<b>1:20-50</b> (Antibody Diluent: DH144)	<b>Retrieval Pre-treatment</b>	<b>Tris-EDTA based HIER</b> (AR9 Buffer: DH020)

## Precautions

*This product should be used by qualified and trained professional users only.*

Avoid microbial contamination of reagents to minimize non-specific staining. Never pipette reagents by mouth. Avoid contact of reagents and specimens with skin. If reagents or specimens come into contact with sensitive area, wash with sufficient amounts of water. Dispose of the unused reagents. This kit contain sodium azide at concentrations of less than 0.1%. Sodium azide is not classified as a hazardous chemical at these concentrations, but proper handling protocols should be observed. For more information on product hazards, precautions and waste disposal, *Material Safety Data Sheets* are available upon request.

## Limitations

Improper tissue handling and processing prior to immunostaining can lead to inconsistent results. Variations in embedding and fixation or the nature of the tissue may lead to variations in results. Endogenous peroxidase activity or pseudo peroxidase activity in erythrocytes and tissue biotin may result in non-specific staining based on the detection system employed. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive with horseradish peroxidase systems. Improper counterstaining and mounting may compromise the interpretation of results. Interpretation of the staining result is solely the responsibility of the user. Experimental results should be confirmed by a medically-established diagnostic product or procedure. Evaluation must be performed by a qualified pathologist.

## Troubleshooting

For Technical Support contact us at +91 - 7506501122 or [info@dygnova.com](mailto:info@dygnova.com) or your local distributor to report unusual staining.

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	Manufacturer Details		Use by Date		Lot/Batch Number
	Manufacturing Date		Consult Instructions for Use		Catalogue Number
	Temperature Limits		Sufficient for 'n' assays / tests		In-vitro Diagnostic Medical Device