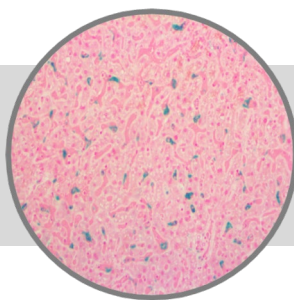


# Macrophage/HAM-56

**Clone: HAM-56**

Mouse Monoclonal



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*Inset: IHC of Macrophage on a FFPE Liver Tissue*

## Intended Use

For Research Use Only.

This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations. Interpretation of results should be performed by a qualified medical professional.

## Immunogen

Sonicated human alveolar macrophages.

## Summary and Explanation

Macrophages comprise many forms of mononuclear phagocytes found in tissues that derive from hematopoietic stem cells in the bone marrow. Among the functions of macrophages are nonspecific phagocytosis and pinocytosis, killing of ingested microorganisms, and digestion and presentation of antigens to T and B-lymphocytes. Macrophages work to secrete a large number of diverse products such as lysozyme and collagenases, several complement components and coagulation factors, some prostaglandins and leukotrienes, and many regulatory molecules (Interferon, Interleukin 1).

Macrophage HAM-56 reacts with tingible macrophages (found in the germinal centers of lymph nodes), interdigitating macrophages of lymph nodes and tissue macrophages, (e.g., Kupffer cells of the liver and alveolar macrophages of the lung). This antibody also stains a subpopulation of endothelial cells, most prominently those of the capillaries and smaller blood vessels. HAM-56 reacts with monocytes, but is unreactive with B and T-lymphocytes.

|                           |                  |                   |                    |
|---------------------------|------------------|-------------------|--------------------|
| <b>Antibody Type</b>      | Mouse Monoclonal | <b>Clone</b>      | HAM-56             |
| <b>Isotype</b>            | IgM/K            | <b>Reactivity</b> | Paraffin, Frozen   |
| <b>Localization</b>       | Cytoplasmic      | <b>Control</b>    | Tonsil, Lymph Node |
| <b>Species Reactivity</b> |                  | Human             |                    |

## Precautions

1. For professional users only. Results should be interpreted by a qualified medical professional.
2. This product contains <0.1% sodium azide (NaN<sub>3</sub>) as a preservative. Ensure proper handling procedures are used with this reagent.
3. Always wear personal protective equipment such as laboratory coat, goggles and gloves when handling reagents.
4. Dispose of unused solution with copious amount of water.
5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately.
6. Avoid contact with eyes. If contact occurs, flush with large quantities of water.
7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar).
8. For additional safety information refer to Safety Data Sheet for this product.
9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (see References in this document).

## Presentation

Macrophage HAM-56 is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

| <i>Catalog No.</i> | <i>Antibody Type</i> | <i>Dilution</i> | <i>Volume/Qty</i> |
|--------------------|----------------------|-----------------|-------------------|
| BSB 5736           | Tinto Prediluted     | Ready-to-Use    | 3.0 mL            |
| BSB 5737           | Tinto Prediluted     | Ready-to-Use    | 7.0 mL            |
| BSB 5738           | Tinto Prediluted     | Ready-to-Use    | 15.0 mL           |
| BSB 5739           | Concentrated         | 1:250 - 1:1000  | 0.1 mL            |
| BSB 5740           | Concentrated         | 1:250 - 1:1000  | 0.5 mL            |
| BSB 5741           | Concentrated         | 1:250 - 1:1000  | 1.0 mL            |

## Control Slides Available

| <i>Catalog No.</i> | <i>Quantity</i> |
|--------------------|-----------------|
| BSB 5742           | 5 slides        |

**Storage** Store at 2-8°C (Control Slides: Store at 20-25°C)

## Stability

**This product is stable up to the expiration date on the product label.** Do not use after expiration date listed on package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

## Specimen Preparation

**Paraffin sections:** The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033) or ImmunoDNA Digestor (BSB 0108-0112). See reverse side for complete protocol. Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

**Frozen sections and cell preparations:** The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.

## Staining Procedure

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023) or EDTA (BSB 0030-BSB 0033).
5. Any of three heating methods may be used:
  - a. TintoRetriever Pressure Cooker or Equivalent**  
Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.
  - b. TintoRetriever PT Module or Water Bath Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.
  - c. Conventional Steamer Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.
6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with ImmunoDNA washer or DI water.
9. Continue IHC staining protocol. Wash slides between each step with ImmunoDNA washer solution.

## Mounting Protocols

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter (BSB 0169-0174) or organic solvent based resin such as PermaMounter (BSB 0094-0097), refer to PI0174 or PI0097.

## Product Limitations

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.







## References

1. Gown AM, et al. Am J Pathol. 125:191-207
2. Alpers CE, et al. Am J Pathol. 92:662-665
3. 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, January 6, 2012.

## Abbreviated Immunohistochemical Protocol

| Step                     | ImmunoDetector<br>AP/HRP | PolyDetector<br>AP/HRP | PolyDetector<br>Plus HRP |
|--------------------------|--------------------------|------------------------|--------------------------|
| Peroxidase/AP Blocker    | 5 min.                   | 5 min.                 | 5 min                    |
| Primary Antibody         | 30-60 min.               | 30-60 min.             | 30-60 min.               |
| 1st Step Detection       | 10 min.                  | 30-45 min.             | 15 min.                  |
| 2nd Step Detection       | 10 min.                  | Not Applicable         | 15 min.                  |
| Substrate-Chromogen      | 5-10 min.                | 5-10 min.              | 5-10 min.                |
| Counterstain / Coverslip | Varies                   | Varies                 | Varies                   |

## Symbol Key / Légende des symboles/Erläuterung der Symbole

|   |  |   |  |  |   |
|---|--|---|--|--|---|
|  | Storage Temperature<br>Limites de température<br>Zulässiger Temperaturbereich                        |  | Manufacturer<br>Fabricant<br>Hersteller              |  | Catalog Number<br>Référence du catalogue<br>Bestellnummer |
|  | Read Instructions for Use<br>Consulter les instructions d'utilisation<br>Gebrauchsanweisung beachten |  | Expiration Date<br>Utiliser jusque<br>Verwendbar bis |  | Lot Number<br>Code du lot<br>Chargenbezeichnung           |



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