



Anti- human CD68 Mouse Monoclonal Primary Antibody

Clone: UMAB150

IVD

REF CE00050

CATALOG NUMBER

C0050MA01-MA 0.1 mL
C0050MA05-MA 0.5 mL
C0050MA10-MA 1.0 mL

ENGLISH

Intended use

Anti- human CD68 (Clone: UMAB150) Mouse Monoclonal Primary Antibody is intended for detection of CD68 protein expression in frozen or formalin fixed human tissues and cells. The clinical interpretation of any positive staining or its absence should be complemented by morphological and histological studies with proper controls. Evaluations should be made within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist. The antibody is intended for *in vitro* diagnostic (IVD) use.

Background

This gene encodes a 110-kD transmembrane glycoprotein that is highly expressed by human monocytes and tissue macrophages. It is a member of the lysosomal/endosomal-associated membrane glycoprotein (LAMP) family. The protein primarily localizes to lysosomes and endosomes with a smaller fraction circulating to the cell surface. It is a type I integral membrane protein with a heavily glycosylated extracellular domain and binds to tissue- and organ-specific lectins or selectins. The protein is also a member of the scavenger receptor family. Scavenger receptors typically function to clear cellular debris, promote phagocytosis, and mediate the recruitment and activation of macrophages. Alternative splicing results in multiple transcripts encoding different isoforms. [provided by RefSeq, Jul 2008].

Alternative names: GP110; LAMP4; SCARD1

Reagent provided

Anti-human CD68 Mouse Monoclonal Primary Antibody (Clone: UMAB150) is provided in liquid form in 20mM Sodium phosphate, 150mM Sodium chloride, 0.2% BSA, 0.09% Sodium azide, pH 7.4. The isotype of the antibody is IgG1. The protein concentration is approximately 0.8 +/- 0.05 mg/mL.

For immunohistochemistry, the primary antibody may be used at a working dilution of 1:50 – 1:80 for formalin-fixed, paraffin-embedded human tissue. It can be dependent upon the detection system used. These are guidelines only, and optimal dilutions should be determined by the individual laboratory.

Immunogen

Human recombinant protein fragment corresponding to amino acids 22-319 of human CD68 (NP_001242) produced in SF9 cells.



Specificity

The specificity of the anti- human CD68 Mouse Monoclonal Primary Antibody was established on known positive spleen. The anti-human CD68 presented no staining on formalin fixed, human muscle and positive staining on formalin fixed, human spleen using immunohistochemical (IHC) test methods.

Materials Required but Not Supplied

Antibody diluent, HIER solution, Antibody detection kits, Chromogen, Staining reagents, negative and positive tissue control slides are not included.

Precautions

1. For use by trained professionals only.
2. This product contains sodium azide (NaN_3), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, NaN_3 may react with lead and copper plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing.
3. Wear appropriate Personal Protective Equipment to avoid contact with eyes and skin.
4. Unused reagents should be disposed of according to local, State, and Federal regulations.

Storage

Store at 2-8°C. Do not use the product past the expiration date indicated on the label. If reagents are stored under any other conditions, the end user must verify the acceptability of those conditions. There are no obvious signs to indicate instability of this product therefore, positive and negative controls should be run simultaneously with patient specimens.

Specimen Preparation

Paraffin Sections

Anti- human CD68 Mouse Monoclonal Primary Antibody can be used on formalin-fixed, paraffin-embedded tissue sections at a working dilution of 1:50 to 1:80. Anti- human CD68 Mouse Monoclonal Primary Antibody (Clone: UMAB150) working dilution requires 10 minutes of pretreatment with Heat Induced Epitope Retrieval (HIER) for staining. We recommend using HIER Accel 3in1 EDTA solution pH 8.7, which showed optimal staining at a dilution of 1:50 on human spleen and negative staining on normal human muscle. The dilutions are estimates; the actual staining results may vary due to reagents and detection protocols used. Validation of antibody performance and final protocol are the responsibility of the end user.

Staining procedure

Manual Staining Procedure

1. Deparaffinize slides.
2. Submerge slides in peroxidase quenching solution for ~10 minutes and rinse with PBS-T 3 times, 2 minutes each.
3. Heat Induced Epitope Retrieval is required for this antibody.
4. Apply serum blocking solution.[Optional]
5. Apply primary antibody and incubate for 30-60 minutes at room temperature. After incubation wash with PBS-T 3 times, 2 minutes each.
6. Apply secondary antibody and incubate according to the data sheet of the detection system. Wash with PBS-T 3 times, 2 minutes each.
7. Apply enzyme conjugate and incubate according to data sheet of detection system. Wash with PBS-T 3 times, 2 minutes each.
8. Apply chromogen and incubate 5-10 minutes and rinse with distilled water.

Staining interpretation

The cellular staining pattern for Anti- human CD68 Mouse Monoclonal Primary Antibody is cytoplasmic and membranous.

Performance Characteristics

Predicted Staining in Normal Tissue/Cells

Muscle tissue was shown to be negative for this antibody.

Predictive Staining in Tumor

Anti- human CD68 Mouse Monoclonal (Clone: UMAB150) produced membranous staining when screened on human spleen.

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