



# Anti- human CD1C Mouse Monoclonal Primary Antibody

Clone: UMAB46

**IVD**

**REF** CE00038

## CATALOG NUMBER

C0038MA01-MA 0.1 mL

## ENGLISH

### Intended use

Anti- human CD1C Mouse Monoclonal Primary Antibody is intended for the detection of CD1C 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

CD1 family of transmembrane glycoproteins are structurally related to the major histocompatibility complex (MHC) proteins and form heterodimers with beta-2-microglobulin. The CD1 proteins mediate the presentation of primarily lipid and glycolipid antigens of self or microbial origin to T cells. The CD1 family members are thought to differ in their cellular localization and specificity for particular lipid ligands. CD1c molecule is broadly distributed throughout the endocytic system via a tyrosine-based motif in the cytoplasmic tail. Alternatively spliced transcript variants have been observed, but their full-length nature is not known.

Alternative names: R7, CD1, CD1A, BDCA1

### Reagent provided

Anti- human CD1C Mouse Monoclonal Primary Antibody (Clone: UMAB46) 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 total protein concentration is  $1.0 \pm 0.05$  mg/mL.

For Immunohistochemistry the primary antibody may be used at a working dilution of 1:100 – 1:200 for formalin-fixed, paraffin-embedded human tissues, and this can be dependent upon the detection system used. These are guidelines only, and the optimal dilutions should be determined by the individual laboratory.

### Immunogen

Full length recombinant protein of human CD1C (NP\_001756) produced in HEK293T cell.

## Specificity

The specificity of the anti- human CD1C Mouse Monoclonal Primary Antibody was established on normal human tonsil and breast. The anti-CD1C presented no staining on formalin fixed breast epithelial cells and positive staining on normal human tonsil 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 ( $\text{NaN}_3$ ), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous,  $\text{NaN}_3$  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 CD1C Mouse Monoclonal Primary Antibody can be used on formalin-fixed, paraffin-embedded tissue sections at a working dilution of 1:100 to 1:200. Anti- human CD1C Mouse Monoclonal Primary Antibody working dilution requires 20 minutes of pretreatment with Heat Induced Epitope Retrieval (HIER) at 95 to 100°C. We recommend using Accel buffer (GBI Labs B22C-100), which showed optimal staining at a dilution of 1:200 on human tonsil and negative staining on human breast tissue using two-step detection systems (Polink-2 Broad HRP).

## 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 CD1C Mouse Monoclonal Primary Antibody is membranous.

### **Performance Characteristics**

#### Predicted Staining in Normal Tissue/Cells

Normal human tonsil was shown to be positive with this antibody. Epithelial cells in breast tissue were shown to be negative, while the muscle and macrophages were positive.

### **Contact Information**



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