Anti– human Arginase 1 Mouse Monoclonal Primary Antibody
Clone: 4E6

**CATALOG NUMBER**

C0080MA01-MA  0.1 mL  
C0080MA05-MA  0.5 mL  
C0080MA10-MA  1.0 mL

**ENGLISH**

**Intended use**
Anti- human Arginase 1 (Clone: 4E6) Mouse Monoclonal Primary Antibody is intended for detection of Arginase 1 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**
Arginase catalyzes the hydrolysis of arginine to ornithine and urea. At least two isoforms of mammalian arginase exist (types I and II) which differ in their tissue distribution, subcellular localization, immunologic crossreactivity and physiologic function. The type I isoform encoded by this gene, is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. [provided by RefSeq].

Alternative names: ARG1; OTTHUMP00000017209; Arginase 1; liver-type arginase; type I arginase; arginase, liver.

**Reagent provided**
Anti-human Arginase 1 Mouse Monoclonal Primary Antibody (Clone: 4E6) 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, k. The protein concentration is approximately 0.2 +/- 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 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**
Full length human recombinant protein of human Arginase 1 (NP_000036) produced in HEK293T cell.
Specificity
The specificity of the anti-human Arginase 1 Mouse Monoclonal Primary Antibody was established on known positive human liver. The anti-human Arginase 1 presented no staining on human pancreas tissue and positive staining on human liver using immunohistochemical (IHC) test methods.

Materials Required but Not Supplied
Antibody diluent, 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 (NaNO₃), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, NaNO₃ 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 Arginase 1 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 Arginase 1 Mouse Monoclonal Primary Antibody (Clone: 4E6) working dilution requires heat induced epitope retrieval (HIER) for 3 minutes using pressure chamber at 110°C for staining. We recommend using HIER Citrate solution pH 6.0, which showed optimal staining of anti-Arginase 1 antibody at a dilution of 1:200 on known normal liver. 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. Rinse with distilled water, wash with PBS-T 3 times, 2 minutes each.
3. Apply serum blocking solution.[Optional]
4. Apply primary antibody and incubate for 30-60 minutes at room temperature. After incubation wash with PBS-T 3 times, 2 minutes each.
5. Apply secondary antibody and incubate according to the data sheet of the detection system. Wash with PBS-T 3 times, 2 minutes each.
6. Apply enzyme conjugate and incubate according to data sheet of detection system. Wash with PBS-T 3 times, 2 minutes each.
7. Apply chromogen and incubate 5-10 minutes and rinse with distilled water.

Staining interpretation
The cellular staining pattern for Anti-human Arginase 1 Mouse Monoclonal Primary Antibody is cellular.

Performance Characteristics
Predicted Staining in Human Tissue
Human pancreas was shown to be negative for anti-human Arginase 1 Mouse Monoclonal antibody.

Predictive Staining in Human Tissue
Anti-human Arginase 1 Mouse Monoclonal (Clone: 4E6) produced cytoplasmic, membranous, and nuclear staining when screened on human liver.
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