

## Arginase 1 monoclonal antibody

Catalog: MB66233

Host: Mouse

Reactivity: Human

### BackGround:

L-arginine plays a critical role in regulating the immune system (1-3). In inflammation, cancer and certain other pathological conditions, myeloid cell differentiation is inhibited leading to a heterogeneous population of immature myeloid cells, known as myeloid-derived suppressor cells (MDSCs). MDSCs are recruited to sites of cancer-associated inflammation and express high levels of arginase-1. Arginase-1 catalyzes the final step of the urea cycle converting L-arginine to L-ornithine and urea. Thus MDSCs increase the catabolism of L-arginine resulting in L-arginine depletion in the inflammatory microenvironment of cancer (4,6). The reduced availability of L-arginine suppresses T-cell proliferation and function and thus contributes to tumor progression (4,6). Arginase-1 is of great interest to researchers looking for a therapeutic target to inhibit the function of MDSCs in the context of cancer immunotherapy. In addition, research studies have demonstrated that Arginase-1 distinguishes primary hepatocellular carcinoma (HCC) from metastatic tumors in the liver, indicating its value as a potential biomarker in the diagnosis of HCC.

### Product:

Mouse IgG2a. Liquid in PBS containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.

### Molecular Weight:

~ 34 kDa

### Swiss-Prot:

P05089

### Purification&Purity:

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

IHC (1/100 - 1/300)

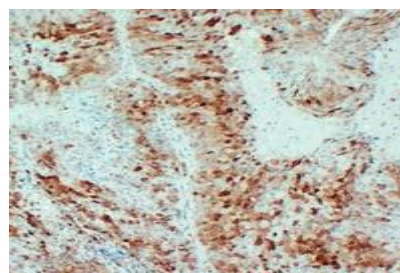
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

### Specificity:

Recognizes endogenous levels of Arginase 1 protein.

### DATA:



Immunohistochemical analysis of Arginase 1 staining in human hepatocellular carcinoma formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

### Note:

For research use only, not for use in diagnostic procedure.

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