

**Mouse Anti-Adenosine Monophosphate Deaminase 3/AMPD3 [AMPD3/901]: MC0602, MC0602RTU7**

**Intended Use:** For Research Use Only

**Description:** It recognizes a protein of ~90kDa, which is identified as Adenosine Monophosphate Deaminase, isoform E (AMPD3). It has 767 amino acids and is assigned an EC 3.5.4.6. It is a highly regulated enzyme that catalyzes the hydrolytic deamination of adenosine monophosphate to inosine monophosphate, a branch point in the adenylate catabolic pathway. AMPD3 gene encodes the erythrocyte (E) isoforms, whereas other family members encode isoforms that predominate in muscle (M) and liver (L) cells. This MAb shows reactivity with cells of the erythroid lineage at all stages of maturation in the peripheral blood, bone marrow, and fetal liver. Non-erythroid lineages are negative by flow cytometry. This MAb is useful in the diagnosis of erythroleukemia, identification of bone marrow erythroid precursors, gating erythroid nucleated precursor cells from malignant cells in bone marrow specimens.

**Specifications:**

Clone: AMPD3/901  
 Source: Mouse  
 Isotype: IgG2b/k  
 Reactivity: Human  
 Localization: Membrane  
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, Flow Cyt., ICC/IF  
 Package:

Description	Catalog No.	Size
AMPD3 Concentrated	MC0602	1 ml
AMPD3 Prediluted	MC0602RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Placenta, fetal skeletal muscle tissue  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human tonsil stained with anti-AMPD3 using DAB

**References:**

1. The contribution of Ca<sup>+</sup> calmodulin activation of human erythrocyte AMP deaminase (isoform E) to the erythrocyte metabolic dysregulation of familial phosphofructokinase deficiency. Sabina RL, et al. Haematologica. 91(5):652-5, 2006.
2. Calcium activates erythrocyte AMP deaminase [isoform E (AMPD3)] through a protein-protein interaction between calmodulin and the N-terminal domain of the AMPD3 polypeptide. Mahnke DK1, et al. Biochemistry. Apr 12;44(14):5551-9, 2005.