

**Mouse Anti-CD53 [MD375]: MC0086, MC0086RTU7**

**Intended Use:** For Research Use Only

**Description:** CD53 is expressed on monocytes, and macrophages, granulocytes, dendritic cells, osteoblasts and osteoclasts, NK cells, and on T- and B-cells from every stage of differentiation but is absent from platelets, erythrocytes, and non-haemopoietic cells. CD53 is a member of a family of tetraspan transmembrane proteins, including CD9, CD37, CD63, CD81, and CD82. It associates with integrins, MHC class II molecules, and a tyrosine phosphatase and plays a role in cellular activation as part of a signal transduction complex involving other membrane glycoproteins. Defects of CD53 expression on neutrophils appear to be related with recurrent infectious diseases. Cross-linking CD53 using CD53 antibodies led to cytoplasmic calcium fluxes in B cells, monocytes, and granulocytes and activation of the monocyte oxidative burst.

**Specifications:**

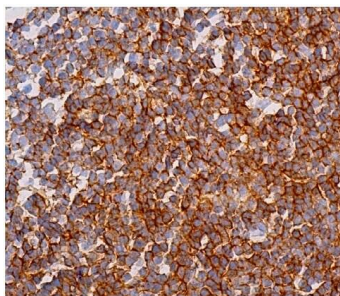
Clone: MD375  
 Source: Mouse  
 Isotype: IgG2b/κ  
 Reactivity: Human, mouse, rat  
 Immunogen: Fragment aa 100-219 of human CD53 C-terminus  
 Localization: Membrane and/or cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>).  
 Storage: Store at 2°- 8°C  
 Applications: IHC, IF, IP, WB  
 Package:

Description	Catalog No.	Size
CD53 Concentrated	MC0086	1 ml
CD53 Prediluted	MC0086RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Tonsil, lymph node, spleen, appendix  
 Concentrated Dilution: 25-200  
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes 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 lymph node stained with anti-CD53 using DAB

**References:**

1. Integrative network-based analysis on multiple Gene Expression Omnibus datasets identifies novel immune molecular markers implicated in non-alcoholic steatohepatitis. Zhang, JJ., et al. Front Endocrinol (Lausanne). 14: 1115890, 2023.
2. Transient activation of the c-Jun N-terminal kinase (JNK) activity by ligation of the tetraspan CD53 antigen in different cell types. Yunta, M., et al. Eur J Biochem. 269: 1012-21, 2002.
3. Cross-linking of CD53 promotes activation of resting human B lymphocytes. | Rasmussen, AM., et al. J Immunol. 153: 4997-5007, 1994.