



Antibodies

1P-184-T025

Monoclonal Antibody to CD39 Phycoerythrin (PE) conjugated (25 tests)

Clone:	TU66
Isotype:	Mouse IgG2b
Specificity:	The mouse monoclonal antibody TU66, also known as Tü66, recognizes CD39, a 78 kDa cell surface enzyme expressed by regulatory T cells, mantle zone B cells, activated T cells, NK cells, macrophages, dendritic cells, neurons, endothelial cells and platelets. HLDA IV; WS Code A54
Regulatory Status:	RUO
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.25 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD39, also known as ectonucleoside triphosphate diphosphohydrolase 1 (ENTPD1), is a cell surface enzyme (with intracellular N- and C-terminus) which hydrolyzes extracellular ATP and ADP to AMP. Inhibition of its enzymatic activity may confer anticancer benefits. The formation of oligomers in the plasma membrane is essential for enzyme activity. It is expressed on Treg cells, and in other cell types, such as mantle zone B cells, activated T cells, NK cells, macrophages, dendritic cells, neurons, endothelial cells and platelets. Hydrolysis of ATP and ADP inhibits inflammatory and thrombotic responses. In the nervous system, it regulates purinergic neurotransmission.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Jin Z, Teramoto N, Hayashi K, Liu YX, Jin G, Oka T, Takahashi K, Yoshino T, Akagi T: CD40 ligand stimulation inhibits the proliferation of mantle cell lymphoma lines. *Anticancer Res.* 2004 Mar-Apr;24(2B):691-7.
- *Gadeock S, Tran JN, Georgiou JG, Jalilian I, Taylor RM, Wiley JS, Sluyter R: TGF- β 1 prevents up-regulation of the P2X7 receptor by IFN- γ ; and LPS in leukemic THP-1 monocytes. *Biochim Biophys Acta.* 2010 Nov;1798(11):2058-66.
- Coppola A, Coppola L, dalla Mora L, Limongelli FM, Grassia A, Mastrolorenzo L, Gombos G, Lucivero G: Vigorous exercise acutely changes platelet and B-lymphocyte CD39 expression. *J Appl Physiol* (1985). 2005 Apr;98(4):1414-9.
- Younas M, Hue S, Lacabaratz C, Guguin A, Wiedemann A, Surenaud M, Beq S, Croughs T, Lelièvre JD, Lévy Y: IL-7 modulates in vitro and in vivo human memory T regulatory cell functions through the CD39/ATP axis. *J Immunol.* 2013 Sep 15;191(6):3161-8.
- *Wang YM, McRae JL, Robson SC, Cowan PJ, Zhang GY, Hu M, Polhill T, Wang Y, Zheng G, Wang Y, Lee VW, Unwin RJ, Harris DC, Dwyer KM, Alexander SI: Regulatory T cells participate in CD39-mediated protection from renal injury. *Eur J Immunol.* 2012 Sep;42(9):2441-51.
- *Nikolova M, Carriere M, Jenabian MA, Limou S, Younas M, Kök A, Huë S, Seddiki N, Hulin A, Delaneau O, Schuitemaker H, Herbeck JT, Mullins JI, Muhtarova M, Bensussan A, Zagury JF, Lelievre JD, Lévy Y: CD39/adenosine pathway is involved in AIDS progression. *PLoS Pathog.* 2011 Jul;7(7):e1002110.
- *Borsellino G, Kleinewietfeld M, Di Mitri D, Sternjak A, Diamantini A, Gioletto R, Höpner S, Centonze D, Bernardi G, Dell'Acqua ML, Rossini PM, Battistini L, Röttschke O, Falk K: Expression of ectonucleotidase CD39 by Foxp3+ Treg cells: hydrolysis of extracellular ATP and immune suppression. *Blood.* 2007 Aug 15;110(4):1225-32.

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