

**CD39/NTPDase 1 (E2X6B) XP<sup>®</sup> Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W, IHC-P	<b>Reactivity:</b> M	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 80	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P55772	<b>Entrez-Gene Id:</b> 12495
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**Product Usage Information****Application**

Western Blotting  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:200

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

CD39/NTPDase 1 (E2X6B) XP<sup>®</sup> Rabbit mAb recognizes endogenous levels of total NTPDase 1 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys307 of mouse NTPDase 1 protein.

**Background**

Ectonucleoside triphosphate diphosphohydrolase 1 (NTPDase 1, also known as CD39) is a multi-pass membrane ectoenzyme that metabolizes adenosine-5'-triphosphate (ATP) to regulate purinergic signaling. Purinergic signaling by extracellular ATP and its metabolites regulate many biological processes, including vascular tone, digestion, neuronal function, and inflammation in both normal and diseased states (1). NTPDase 1 is expressed in endothelial cells in the vasculature to regulate local platelet purinergic signaling via metabolism of ATP to adenosine (2). Accordingly, NTPDase 1 regulates platelet activation aggregation and contributes to the antithrombotic properties of endothelial cells (3). ATP and its metabolites also finely modulate the activity of T cells and macrophages (4,5). Immunomodulation is regulated, in part, by the availability of extracellular ATP and adenosine, suggesting that NTPDase 1 (CD39) may play an immunosuppressive role in the tumor microenvironment.

**Background References**

1. Burnstock, G. and Ralevic, V. (2014) *Pharmacol Rev* 66, 102-92.
2. Kauffenstein, G. et al. (2010) *Cardiovasc Res* 85, 204-13.
3. Pinsky, D.J. et al. (2002) *J Clin Invest* 109, 1031-40.
4. Ohradanova-Repic, A. et al. (2018) *Front Immunol* 9, 852.
5. Deaglio, S. et al. (2007) *J Exp Med* 204, 1257-65.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**M:** Mouse

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