

Siglec-10 (D4E3Z) Rabbit mAb

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Applications: W, IP	Reactivity: M	Sensitivity: Endogenous	MW (kDa): 92, 100-105	Source/Isotype: Rabbit IgG	UniProt ID: #Q80ZE3	Entrez-Gene Id: 243958
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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

Siglec-10 (D4E3Z) Rabbit mAb recognizes endogenous levels of total Siglec-10 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro250 of mouse Siglec-10 protein.

Background

Siglec-10 is a sialic acid-binding Ig-like lectin that has been shown to negatively regulate innate and adaptive immune system function (1). Siglec-10 is a type 1 transmembrane protein that has four extracellular Ig-like domains, a transmembrane region, and a cytoplasmic tail with two immunoreceptor tyrosine-based inhibitory motifs (ITIMs) (2). Siglec-10 is expressed in dendritic cells (DCs), monocytes, B cells, NK cells, and T cells (2,3). Siglec-10 interacts with CD24 to suppress immune responses to danger associated molecular patterns (DAMPs) by associating with the tyrosine phosphatase SHP-1, a negative regulator of nuclear factor-kappa B (NF-κB) (4). Siglec-10 has been shown to bind soluble CD52 leading to the impairment of phosphorylation of the T cell receptor-associated kinases Lck and Zap70 and T cell activation (3). It has been proposed that this mechanism of suppression could be involved in T cell homeostasis and the prevention of type I diabetes (3). Siglec-10 has also been identified as the leukocyte ligand for vascular adhesion protein-1 (VAP-1), which plays a key role in leukocyte trafficking (5). Lectin galactoside-binding soluble 3 binding protein (LGALS3BP), a tumor-associated immunomodulatory ligand, has also been shown to bind Siglec-10 (6).

Background References

1. Crocker, P.R. et al. (2007) *Nat Rev Immunol* 7, 255-66.
2. Li, N. et al. (2001) *J Biol Chem* 276, 28106-12.
3. Bandala-Sanchez, E. et al. (2013) *Nat Immunol* 14, 741-8.
4. Chen, G.Y. et al. (2009) *Science* 323, 1722-5.
5. Kivi, E. et al. (2009) *Blood* 114, 5385-92.
6. Läubli, H. et al. (2014) *J Biol Chem* 289, 33481-91.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

M: Mouse

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