## #41262 Store at -20C

## Siglec-10 (D4E3Z) Rabbit mAb



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Applications:Reactivity:Sensitivity:MW (kDa):Source/Isotype:UniProt ID:Entrez-Gene Id:WB, IPMEndogenous92, 100-105Rabbit IgG#Q80ZE3243958

Product Usage<br/>InformationApplicationDilution<br/>1:1000Western Blotting<br/>Immunoprecipitation1:500

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  $-20^{\circ}$ 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,

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 WB: Western Blotting IP: Immunoprecipitation

Cross-Reactivity Key H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster

X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse

GP: Guinea Pig Rab: rabbit All: all species expected

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