Data Sheet (Cat.No.TMAY-03562F)

TargetMol

Anti-Siglec-2/CD22 Antibody-FITC (2E388)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Mouse
Conjugation:	FITC
Clone:	2E388
Purification:	Protein A

Applications

Verified Activity:	Flow cytometric analysis of Mouse CD22 expression on BABL/c splenocytes. Cells were stained with FITC-conjugated anti-Mouse CD22. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.
Application:	FCM
Recommended	5 μl/Test, 0.1 mg/ml

Properties

Stability & Storage:	Store at 2°C-8°C for 12 months, do not freeze. Keep away from direct sunlight.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Mouse CD22 Protein (TMPY-04083)
Antigen Species:	Mouse
Synonyms:	SIGLEC-2;SIGLEC2;CD22 molecule
Biology Area:	Cancer Drug Targets, ITIM/ITAM Immunoreceptors and Related Molecules

Research Background

CD22 is a member of the immunoglobulin superfamily, SIGLEC family of lectins. It is first expressed in the cytoplasm of pro-B and pre-B cells, and on the surface as B cells mature to become IgD+. CD22 serves as an adhesion receptor for sialic acid-bearing ligands expressed on erythrocytes and all leukocyte classes. In addition to its potential role as a mediator of intercellular interactions, signal transduction through CD22 can activate B cells and modulate antigen receptor signaling in vitro. The phenotype of CD22-deficient mice suggests that CD22 is primarily involved in the generation of mature B cells within the bone marrow, blood, and marginal zones of lymphoid tissues. CD22 recruits the tyrosine phosphatase Src homology 2 domain-containing phosphatase 1 (SHP-1) to immunoreceptor tyrosine-based inhibitory motifs (ITIMs) and inhibits B-cell receptor (BCR)-induced Ca2+ signaling on normal B cells. CD22 interacts specifically with ligands carrying alpha2-6-linked sialic acids. As an inhibitory coreceptor of the B-cell receptor (BCR), CD22 plays a critical role in establishing signalling thresholds for B-cell activation. Like other coreceptors, the ability of CD22 to modulate B-cell signalling is critically dependent upon its proximity to the BCR, and this in turn is governed by the binding of its extracellular domain to alpha2,6-linked sialic acid ligands. However, genetic studies in mice reveal that some CD22 functions are regulated by ligand binding, whereas other functions are ligand-independent and may only require expression of an intact CD22 cytoplasmic domain at the B-cell surface. CD19 regulates CD22 phosphorylation by augmenting Lyn kinase activity, while CD22 inhibits CD19

phosphorylation via SHP-1.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

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