

12-9251: Anti-CD33 antibody(DM77), Rabbit mAb

Clonality : Monoclonal
Clone Name : DM77
Application : ELISA,FACS
Reactivity : Human
Alternative Name : CD33,SIGLEC3,gp67,SIGLEC-3

Description

Sialic-acid-binding immunoglobulin-like lectin (Siglec) that plays a role in mediating cell-cell interactions and in maintaining immune cells in a resting state. Preferentially recognizes and binds alpha-2,3- and more avidly alpha-2,6-linked sialic acid-bearing glycans. Upon engagement of ligands such as C1q or sialylated glycoproteins, two immunoreceptor tyrosine-based inhibitory motifs (ITIMs) located in CD33 cytoplasmic tail are phosphorylated by Src-like kinases such as LCK. These phosphorylations provide docking sites for the recruitment and activation of protein-tyrosine phosphatases PTPN6/SHP-1 and PTPN11/SHP-2. In turn, these phosphatases regulate downstream pathways through dephosphorylation of signaling molecules. One of the repressive effect of CD33 on monocyte activation requires phosphoinositide 3-kinase/PI3K.

Product Info

Amount : 100 µg
Purification : Purified from cell culture supernatant by affinity chromatography
Content : Not Sterile
Storage condition : Store at -20°C for 12 months (Avoid repeated freezing and thawing)

Application Note

ELISA 1/5000-10000;FACS 1/100

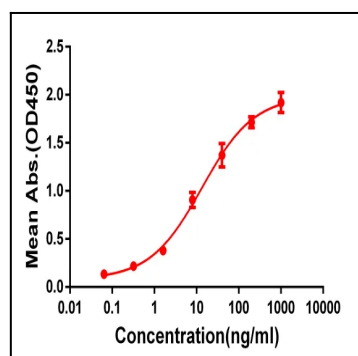


Figure 1. ELISA plate pre-coated by 2 µg/ml (100 µl/well) Human CD33 protein, hFc-His tagged protein can bind Rabbit anti-CD33 monoclonal antibody (clone: DM77) in a linear range of 1-100 ng/ml.

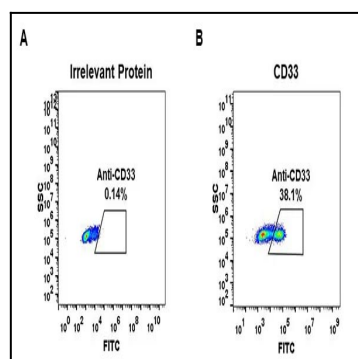


Figure 2. Expi 293 cell line transfected with irrelevant protein (A) and human CD33 (B) were surface stained with Rabbit anti-CD33 monoclonal antibody $1\frac{1}{4}$ g/ml (clone: DM77) followed by Alexa 488-conjugated anti-rabbit IgG secondary antibody.

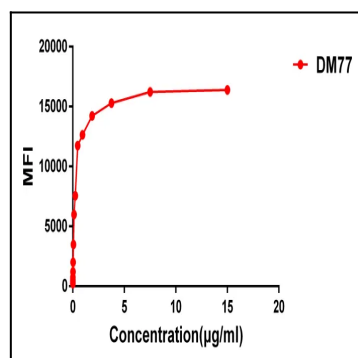


Figure 3. Flow cytometry data of serially titrated Rabbit anti-CD33 monoclonal antibody (clone: DM77) on Expi 293 cell line transfected with human CD33. The Y-axis represents the mean fluorescence intensity (MFI) while the X-axis represents the concentration of IgG used.

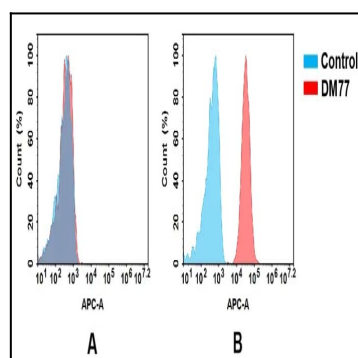


Figure 4. Flow cytometry analysis of antigen binding of rabbit anti-human CD33 mAb. (A) Anti-human CD33 mAb does not bind to 293T cells that do not express CD33. (B) A clear peak shift of anti-human CD33 mAb was seen compared to the control when incubated with CD33-expressing THP-1 cells, indicating strong binding of anti-human CD33 mAb to CD33. Antibodies were incubated at $10\frac{1}{4}$ g/mL.