

## APC Human CD22 Protein (C-Fc)

<b>Catalog Number:</b>	803703, 803704
<b>Size:</b>	25 ug, 100 ug
<b>Target Name:</b>	CD22, SIGLEC2, BL-CAM
<b>Regulatory Status:</b>	RUO

### PRODUCT DETAILS

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<b>Application:</b>	Flow Cytometry
<b>Format:</b>	Liquid, APC
<b>Expression Host:</b>	CHO
<b>Species:</b>	Human
<b>Sources:</b>	Human CD22 protein (Asp20-Arg687) with C-terminus Fc tag is expressed in CHO cells and conjugated to APC.
<b>Accession Number:</b>	P20273
<b>Molecular Weight:</b>	The protein has a predicted molecular weight of 101 kDa. Under DTT-reducing conditions, it migrates at approximately 130-150 kDa on SDS-PAGE prior to conjugation.
<b>Affinity Tag:</b>	C-Fc
<b>Formulation:</b>	1xPBS buffer, pH7.4, 0.09% NaN3 with a carrier protein
<b>Endotoxin level:</b>	Not tested
<b>Protein Concentration:</b>	25µg size is bottled at 0.1mg/mL concentration. 100 µg size is bottled at lot specific concentration.
<b>Storage and Handling:</b>	Briefly centrifuge the vial upon receipt. An unopened vial may be stored at 2-8°C for up to six months.

### BACKGROUND INFORMATION

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CD22, also known as Siglec-2 or BL-CAM, is a 130 kDa type I transmembrane glycoprotein and a member of the immunoglobulin superfamily and SIGLEC family. It is expressed in the cytoplasm of pro-B and pre-B cells and on the surface of mature and activated B cells, but not plasma cells. CD22 acts as both an adhesion receptor that binds  $\alpha$ 2,6-linked sialic acid-containing glycoproteins (such as CD45RO and CD75) and a key modulator of B cell receptor (BCR) signaling. Through its immunoreceptor tyrosine-based inhibitory motifs (ITIMs), CD22 recruits SHP-1 phosphatase to attenuate BCR-mediated calcium signaling, helping to establish B cell activation thresholds and maintain immune tolerance. CD22 also interacts with signaling molecules including Lyn, Syk, Lck, and PLC $\gamma$ 1, and its function is partly regulated by CD19 and ligand binding. It is involved in B cell-B cell interactions and may play a role in B cell localization within lymphoid tissues.