

## Technical Data Sheet

### PE Conjugated Human CD22 Protein (C-Fc)

**Catalog Number:** 803701, 803702

**Size:** 25 ug, 100 ug

**Target Name:** CD22, SIGLEC2, BL-CAM

**Regulatory Status:** RUO

#### Product Details

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**Application:** FC

**Format:** Liquid, PE

**Expression Host:** CHO

**Species:** Human

**Sources:** Human CD22 protein (Asp20-Arg687) with C-terminus Fc tag is expressed in CHO cells and conjugated to PE.

**Accession Number:** P20273

**Molecular Weight:** 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.

**Affinity Tag:** C-Fc

**Formulation:** 1xPBS buffer, pH7.4, 0.09% NaN<sub>3</sub> with a carrier protein

**Endotoxin level:** Not tested

**Protein Concentration:** 25µg size is bottled at 0.1mg/mL concentration. 100 µg size is bottled at lot specific concentration.

**Storage and Handling:** 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 ?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?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.