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Biotin Human CD32a R167 (FcγRIIA) Protein (C-His-Avi)

Catalog Number:	820203, 820204
Size:	25 ug, 100 ug
Target Name:	CD32a, FCGR2A, CD32, FCG2 , FCGR2A1, IGFR2
Regulatory Status:	RUO

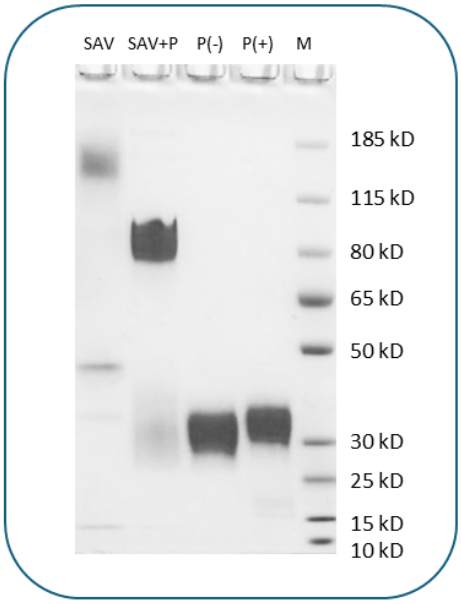
PRODUCT DETAILS

Application:	ELISA, BLI
Format:	Liquid, Biotinylated
Expression Host:	CHO
Species:	Human
Sources:	Recombinant CD32a R167 /Fc gamma RIIa (Ala 36 - Ile 218) with C-terminus His-Avi-tag is expressed in CHO cell. This protein was site-specifically labeled with Biotin by BirA ligase.
Accession Number:	Q92835
Molecular Weight:	The protein has a predicted molecular weight of 24.4 kDa. Under DTT-reducing conditions, it migrates at approximately 35 kDa on SDS-PAGE.
Affinity Tag:	C-His-Avi
Purity:	>95% based on SDS-PAGE under reducing condition
Formulation:	1xPBS buffer, pH7.4, 0.22 μm filtered
Endotoxin level:	Less than 0.1 EU/μg protein as determined by the LAL method
Protein Concentration:	25μg size is bottled at 0.2mg/mL concentration. 100 μg size is supplied at a lot-specific concentration.
Storage and Handling:	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 μm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

BACKGROUND INFORMATION

FcγRII, or CD32, is a low-affinity receptor for IgG Fc region. In human, it is expressed as three isoforms (A, B, C). The activating isoform, FcγRIIA (CD32a), is found on monocytes, macrophages, granulocytes, platelets, and mast cells. It features an extracellular domain, transmembrane region, and a cytoplasmic tail with a non-classical ITAM, crucial for dimerization and signaling. FcγRIIA plays a key role in inflammation, phagocytosis, and platelet activation, influencing conditions like thrombocytopenia, rheumatoid arthritis, and lupus. Its activity is modulated by lipid rafts, and the receptor’s affinity for IgG subclasses varies.

PRODUCT DATA



Human CD32a R167 /Fc gamma RIIa (C-His-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under reducing (P+) and non-reducing (P−) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of the CD32a R167 /Fc gamma RIIa protein exceeds 95%.