

Recombinant Human Fc gamma RI/FCGR1/CD64 Protein

RPCB1509

Product Information

Product SKU:	RPCB1509	Gene ID:	2209	Size:	10µg
Tag:	C-His	Reactivity:	Human		

Additional Information

Expression Host:	HEK293 cells	Swissprot:	P12314
Purity:	> 97% by SDS-PAGE.		

Protein Information

Background: Receptors for the Fc region of IgG (Fc gamma Rs) are members of the Ig superfamily that function in the activation or inhibition of immune responses such as degranulation, phagocytosis, ADCC (antibody-dependent cellular toxicity), cytokine release, and B cell proliferation . The Fc gamma Rs have been divided into three classes based on close relationships in their extracellular domains; these groups are designated Fc gamma RI (also known as CD64), Fc gamma RII (CD32), and Fc gamma RIII (CD16). Each group may be encoded by multiple genes and exist in different isoforms depending on species and cell type. The CD64 proteins are high affinity receptors capable of binding monomeric IgG, whereas the CD16 and CD32 proteins bind IgG with lower affinities only recognizing IgG aggregates surrounding multivalent antigens . Fc gamma Rs that deliver an activating signal either have an intrinsic immunoreceptor tyrosine-based activation motif (ITAM) within their cytoplasmic domains or associate with one of the ITAM-bearing adapter subunits, Fc R gamma or zeta. The only inhibitory member in human and mouse, Fc gamma RIIB, has an intrinsic cytoplasmic immunoreceptor tyrosine-based inhibitory motif (ITIM). The coordinated functioning of activating and inhibitory receptors is necessary for successful initiation, amplification, and termination of immune responses.

Three highly homologous genes (A, B, and C) sharing 98% identity at the nucleotide level have been identified for the human CD64 group . Fc gamma RI is

transmembrane protein with three extracellular Ig-like domains, and it delivers an activating signal via the associated Fc R gamma accessory chain. The genes for Fc gamma R1B and Fc gamma R1C contain stop codons within their membrane proximal Ig-like domains indicating possible secreted receptors .

- Protein Description:** High quality, high purity and low endotoxin recombinant Recombinant Human Fc gamma RI/FCGR1/CD64 Protein , tested reactivity in HEK293 cells and has been validated in SDS-PAGE.100% guaranteed.
- Endotoxin:** < 0.1 EU/μg of the protein by LAL method.
- Formulation:** Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.
- Storage:** Store at -20°C.Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.