CD64 Protein, Human (Biotinylated, 272a.a, HEK293, His-Avi)

Cat. No.:	HY-P72926
Synonyms:	High affinity immunoglobulin gamma Fc receptor I; Fcgr1; FcRI; CD64
Species:	Human
Source:	HEK293
Accession:	P12314 (Q16-T287)
Gene ID:	2209
Molecular Weight:	34-68 kDa

PROPERTIES

AA Sequence	MWFLTTLLLW VPVDGQVDTT KAviTLQPPW VSVFQEETVT LHCEVLHLPG SSSTQWFLNG TATQTSTPSY RITSASVNDS GEYRCQRGLS GRSDPIQLEI HRGWLLLQVS SRVFTEGEPL ALRCHAWKDK LVYNVLYYRN GKAFKFFHWN SNLTILKTNI SHNGTYHCSG MGKHRYTSAG ISVTVKELFP APVLNASVTS PLLEGNLVTL SCETKLLLQR PGLQLYFSFY MGSKTLRGRN TSSEYQILTA RREDSGLYWC EAATEDGNVL KRSPELELQV LGLQLPT
Biological Activity	1.Immobilized Anti-CD20(Ro) Antibody (Rituximab) at 1 μg/mL (100 μL/well) can bind Recombinant Human CD64 / FCGR1A Protein (His & AVI Tag), Biotinylated, the EC_{50} is 1-3 ng/mL. 2.Biotinylated Human Fc gamma RI, His-Avi Tag captured on CM5 Chip via Anti-His Antibody can bind Trastuzumab with an affinity constant of 5 nM as determined in SPR assay (Biacore T200).
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	CD64 protein is a high affinity receptor for the Fc region of immunoglobulins gamma. It plays a role in both innate and adaptive immune responses. CD64 mediates IgG effector functions on monocytes, triggering antibody-dependent cellular cytotoxicity (ADCC) against virus-infected cells. It interacts with IGHG1 and forms a functional signaling complex with FCERG1. CD64 also interacts with FLNA, preventing degradation of FCGR1A. Additionally, it interacts with EPB41L2, LAT, PPL, HCK, and LYN, contributing to its diverse functions in immune regulation.

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