FCGR1 Cell Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	CD64 (FCGR1), Cell Lysate
Full Product Name	Rat CD64 HEK293 Overexpression Lysate
Product Gene Name	FCGR1 cell lysate
Product Synonym Names	Rat CD64/FCGR1A HEK293 Cell Lysate (WB positive control); Fc receptor, IgG, high affinity I
Sequence	Met1-Pro28 5
Host	HEK293 Cells
Form/Format	1x Sample Buffer (1x modified RIPA buffer+1x SDS loading buffer). Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF.
Preparation and Storage	Store at 4 degree C for up to twelve months from date of receipt. After re-dissolution, aliquot and store at -80 degree C for up to twelve months. Avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt.
Sequence Positions	280aa
Species	Rat
Recommend Usage	1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube.**2. Re-dissolve the pellet using 200uL pure water and boil for 2-5 min.**
Sequence Construction	A DNA sequence encoding the rat FCGR1A (NP_001094306.1) extracellular domain (Met 1-Pro 285) was expressed, fused with a polyhistidine tag at the C-terminus.
Preparation Method	Cell lysate was prepared by homogenization of the over-expressed cells in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors. Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x SDS loading buffer (50mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Product Categories/Family for FCGR1 cell lysate	Fc Receptors
Applications Tested/Suitable for FCGR1 cell lysate	Western Blot (WB)
Application Notes for FCGR1 cell lysate	WB: Use at an assay dependent dilution.
Related Product Information for FCGR1 cell lysate	High affinity immunoglobulin gamma Fc receptor I, also known as FCGR1 and CD64, is an integral membraneglycoprotein and a member of the immunoglobulin superfamily. CD64 is a high affinity receptor for the Fc region of IgG gamma and functions in both innate and adaptive immune responses. Receptors that recognize the Fc portion of IgG function in the regulation of immune response and are divided into three classes designated CD64, CD32, and CD16. CD64 is structurally composed of asignal peptidethat allows its transport to the surface of a cell, threeextracellularimmunoglobulin domainsof the C2-type that it uses to bind antibody, a hydrophobictransmembrane domain, and a short cytoplasmic tail. CD64 isconstitutivelyfound on only macrophages and monocytes, but treatment of polymorphonuclear leukocyteswith cytokines likeIFNgammaandG-CSFcan induce CD64 expression on these cells. The inactivation of the mouse CD64 resulted in a wide range of defects in antibody Fc-dependent functions. Mouse CD64 is an early participant in Fc-dependent cell activation and in the development of immune responses. This Rat CD64 overexpression lysate was created in HEK293 Cells and intented for use as a Western blot (WB) positive control. Purification of CD64 protein from the overexpression lysate was verified.

Product References and Citations for FCGR1 cell lysate	Allen J.M., et al., (1988), Nucleotide sequence of three cDNAs for the human high affinity Fc receptor (FcRI). Nucleic Acids Res. 16:11824-11824.Allen J.M., et al., (1989), Isolation and expression of functional high-affinity Fc receptor complementary DNAs.Science 243:378-381.Porges A.J., et al., (1992), Novel Fc gamma receptor I family gene products in human mononuclear cells.J. Clin. Invest. 90:2102-2109.
Other Notes	Small volumes of FCGR1 cell lysate vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for FCGR1 purchase	MBS8117330 is a cell lysate targeting FCGR1. Also known as Rat CD64 HEK293 Overexpression Lysate. Host: HEK293 Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FCGR1. It may not necessarily be applicable to this product.

NCBI GI #	158631264
NCBI GeneID	295279
NCBI Accession #	NP_001094306.1
GenBank Nucleotide #	NM_001100836.1
NCBI Official Full Name	high affinity immunoglobulin gamma Fc receptor I
NCBI Official Synonym Full Names	Fc fragment of IgG receptor Ia
NCBI Official Symbol	Fcgr1a
NCBI Official Synonym Symbols	Fcgr1; Fcgr1b; FcgammaRI
Protein Family	High affinity immunoglobulin gamma Fc receptor
NCBI Protein Information	high affinity immunoglobulin gamma Fc receptor I
NCBI Summary for FCGR1	human homolog is a high-affinity receptor for immunoglobulin G [RGD, Feb 2006]
Research Articles on FCGR1	**1.** Expression of TNF-alpha and IL-10 in microglia was elevated to protective levels by neuron-derived IgG at a physiologic level via the FcgammaR I and TLR4 pathways.
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