CD226 Cell Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	CD226, Cell Lysate
Full Product Name	Rat CD226 HEK293 Overexpression Lysate
Product Gene Name	CD226 cell lysate
Product Synonym Names	Rat CD226/DNAM-1 HEK293 Cell Lysate (WB positive control); CD226 molecule
Sequence	Met1-Ile26 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.
Molecular Weight	39,607 Da
Sequence Positions	475aa
3D Structure	ModBase 3D Structure for D3ZS97
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 CD226 (D3ZS97) (Met1-Ile265) was expressed with the Fc region of human IgG1 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 CD226 cell lysate	ITIM/ITAM Immunoreceptors and Related Molecules Cancer Drug Targets
Applications Tested/Suitable for CD226 cell lysate	Western Blot (WB)
Application Notes for CD226 cell lysate	WB: Use at an assay dependent dilution.

Related Product Information for CD226 cell lysate	The cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD226, also known as PTA1 or DNAM-1, is a member of the immunoglobulin superfamily containing 2 Ig-like domains of the V-set. High rate of CD226 (Cluster of Differentiation 226) is found on the surface of natural killer cells, platelets, monocytes and a subset of T cells. CD226 have binding sites with CD112 and CD155 and mediate cellular adhesion to other cells containing its ligands. This Rat CD226 overexpression lysate was created in HEK293 Cells and intented for use as a Western blot (WB) positive control. Purification of CD226 protein from the overexpression lysate was verified.
Product References and Citations for CD226 cell lysate	Zola H, et al. (2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5.Ho IC, et al. (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35.Matesanz-Isabel J, et al. (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12.
Other Notes	Small volumes of CD226 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 CD226 purchase	MBS8117597 is a cell lysate targeting CD226. Also known as Rat CD226 HEK293 Overexpression Lysate. Host: HEK293 Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD226. It may not necessarily be applicable to this product.

NCBI GI #	157817173
NCBI GeneID	307199
NCBI Accession #	NP_001100840.1
UniProt Primary Accession #	D3ZS97
GenBank Nucleotide #	NM_001107370.1
NCBI Official Full Name	CD226 antigen
NCBI Official Synonym Full Names	CD226 molecule
NCBI Official Symbol	Cd226
UniProt Protein Name	CD226 antigen (Predicted), isoform CRA_b
UniProt Synonym Protein Names	CD226 antigen (Predicted), isoform CRA_b
Protein Family	CD226 antigen
UniProt Gene Name	Cd226
NCBI Protein Information	CD226 antigen
UniProt Comments for CD226	DNAM-1: Receptor involved in intercellular adhesion, lymphocyte signaling, cytotoxicity and lymphokine secretion mediated by cytotoxic T-lymphocyte (CTL) and NK cell. Protein type: Cell adhesion; Immunoglobulin superfamily; Membrane protein, integral
Research Articles on CD226	**1.** his study showed that CD226 Gly307Ser may correlate with risk of neuromyelitis optica in Southern Han Chinese.
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