Recombinant Protein Technical Manual

Recombinant Mouse CD45/PTPRC Protein (Active)

RPES0551

Product Data:

Product SKU: RPES0551

Size: 20µg

Species: Mouse

Expression host: Baculovirus-Insect Cells

Uniprot: AAA39458.1

Protein Information:

Molecular Mass:	81 kDa
AP Molecular Mass:	93 kDa
Tag:	
Bio-activity:	1. The specific activity was determined to be 9168 nmol/min/mg using p-nitrophenyl phosphate as substrate.2. Measured by its binding ability in a functional ELISA. Immobilized mouse PTPRC (453152) at 10 µg/ml (100 µl/well) can bind biotinylated human Ga
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage:	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping:	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at<-20°C.
Formulation:	Supplied as sterile 20mM Tris, 500mM NaCl, 10% glycerol, 3mM DTT, pH 7.4
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	Functional ELISA
Synonyms:	B220;Cd45;CD45R;L-CA;loc;Ly-5;Lyt-4;T200

Immunogen Information:

Sequence: Arg453-Ser1152

Background:

The cluster of differentiation (CD) system is commonly used as cell markers in immunophynotyping. 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. Protein tyrosine phosphatase, receptor type C (CD45), also known as PTPRC is a member of the protein tyrosine phosphatase (PTP) family which is known for its function to serve as signaling molecules and to regulate a variety of cellular processes such as cell proliferation, differentiation, mitotic cycle and oncogenic transformation. CD45 is found expression specifically in hemotopietic cells. CD45 consists of an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains. It serves as an essential regulator of T-cell and B-cell antigen receptor signaling through either direct interaction with components of the antigen receptor complexs or by activating various Src family kinases required for the antigen receptor signaling and it also can suppress JAK kinases.