Data Sheet (Cat.No.TMPH-01072)

TargetMol

CD44 Protein, Human, Recombinant (Avi & mFc), Biotinylated

General Information

Synonyms:	MDU2;Phagocytic glycoprotein 1 (PGP-1);Extracellular matrix receptor III (ECMR-III);Hermes antigen;Phagocytic glycoprotein I (PGP-I);MIC4;CD44;LHR;CDw44;MDU3;CD44 antigen; Epican;GP90 lymphocyte homing/adhesion receptor;Hyaluronate receptor;Heparan sulfate proteoglycan;HUTCH-I
Protein Construction:	21-220 aa
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P16070
Molecular Weight:	51.0 kDa (predicted)
AA Sequence:	QIDLNITCRFAGVFHVEKNGRYSISRTEAADLCKAFNSTLPTMAQMEKALSIGFETCRYGFIEGHVVIPRIHPNSI CAANNTGVYILTSNTSQYDTYCFNASAPPEEDCTSVTDLPNAFDGPITITIVNRDGTRYVQKGEYRTNPEDIYP SNPTDDDVSSGSSSERSSTSGGYIFYTFSTVHPIPDEDSPWITDSTDRIP

QC Testing

Biological Activity:	Measured by its binding ability in a functional ELISA. Immobilized Anti-CD44 Mouse Monoclonal Antibody at 2 μg/mL can bind Biotinylated human CD44, the EC 50 is 2.865-5.099 ng/mL.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, 6% Trehalose, pH 7.4

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Cell-surface receptor that plays a role in cell-cell interactions, cell adhesion and migration, helping them to sense and respond to changes in the tissue microenvironment. Participates thereby in a wide variety of cellular functions including the activation, recirculation and homing of T-lymphocytes, hematopoiesis, inflammation and response to bacterial infection. Engages, through its ectodomain, extracellular matrix components such as hyaluronan/HA, collagen, growth factors, cytokines or proteases and serves as a platform for signal transduction by assembling, via its cytoplasmic domain, protein complexes containing receptor kinases and membrane proteases. Such effectors include PKN2, the RhoGTPases RAC1 and RHOA, Rho-kinases and phospholipase C that coordinate signaling pathways promoting calcium mobilization and actin-mediated cytoskeleton reorganization essential for cell migration and adhesion.

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