

CD44 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	LHR;HCELL;CDW44;MDU3;MC56;MIC4;MDU2;HUTCH-I;IN;Pgp1;ECMR-III;CSPG8;CD44 molecule (Indian blood group)
Protein Construction:	Gln21-Pro220 & Gln386-Ala427
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P16070-1
Molecular Weight:	53.57 kDa (Predicted); 70-100 kDa (Due to glycosylation)

QC Testing

Biological Activity:	Immobilized Human CD44, hFc Tag at 0.5 µg/ml (100 µl/well) on the plate. Dose response curve for Biotinylated Anti-CD44 Antibody, hFc Tag with the EC50 of 17.8 ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled 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:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. 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

CD44 is a hyaluronan binding cell surface signal transducing receptor that influences motility, cell survival and proliferation as well as the formation of tumor microenvironment. CD44 contains two variable regions encoded by variable exons. Alternative splicing, which is often deregulated in cancer, can produce various isoforms of CD44 with properties that may have different tissue specific effects and therefore even diverse effects on cancer

progression

Reference

- Bajorath J. (2000) Molecular organization, structural features, and ligand binding characteristics of CD44, a highly variable cell surface glycoprotein with multiple functions. *Proteins*. 39(2): 103-11.
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- Johnson P, et al. (2009) CD44 and its role in inflammation and inflammatory diseases. *Inflamm Allergy Drug Targets*. 8(3): 208-20.
- Toole BP, et al. (2008) Hyaluronan, CD44 and Emmprin: partners in cancer cell chemoresistance. *Drug Resist Updat*. 11(3): 110-21.

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