

Synonym

CD167a

Source

Human DDR1, Fc Tag (DD1-H5258) is expressed from human 293 cells (HEK293). It contains AA Asp 21 - Thr 416 (Accession # [Q08345-1](#)).

Predicted N-terminus: Asp 21

Molecular Characterization

DDR1(Asp 21 - Thr 416) Q08345-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 70.4 kDa. The protein migrates as 70-80 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 51 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

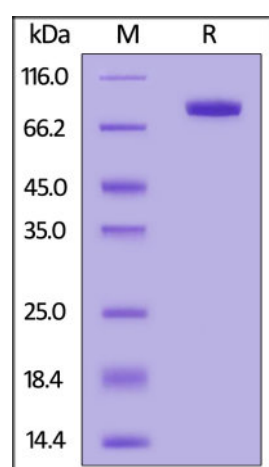
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

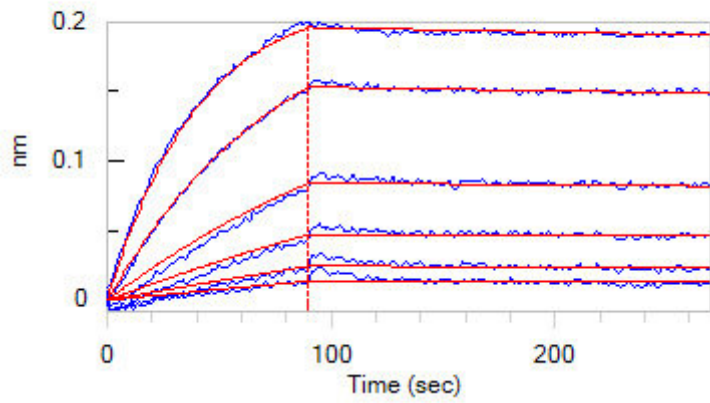
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human DDR1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-BLI



Loaded Human DDR1, Fc Tag (Cat. No. DD1-H5258) on Protein A Biosensor, can bind Native Human Collagen I protein with an affinity constant of 0.327 nM as determined in BLI assay (ForteBio Octet Red96e) (QC tested).

Background

Discoidin domain receptor 1 (DDR1) is a member of DDRs, which are members of the receptor tyrosine kinase (RTK). Upon collagen binding, DDR1 undergoes tyrosine autophosphorylation, which consequently triggers downstream genetic and cellular pathways and plays critical roles in the regulation of cellular morphogenesis, differentiation, proliferation, adhesion, migration, and invasion. Research shows that DDR1 is closely related to various human diseases including cancer, fibrosis, atherosclerosis, and other inflammatory disorders. New generation DDR1 inhibitors targeting the allosteric sites outside of the canonical ATP-binding pocket or extracellular domain (allosteric inhibitors) may offer a new opportunity for selective DDR1 inhibition therapy development.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.