

Synonym

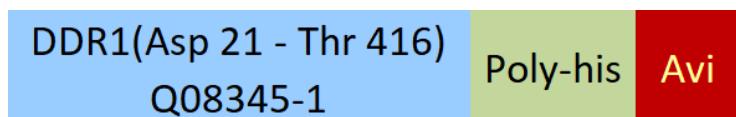
CD167a

Source

Biotinylated Human DDR1, His,Avitag™ (DD1-H82E9) is expressed from human 293 cells (HEK293). It contains AA Asp 21 - Thr 416 (Accession # [Q08345-1](#)).

Predicted N-terminus: Asp 21

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 47.5 kDa. The protein migrates as 50-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Biotinylation

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Biotin:Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. 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

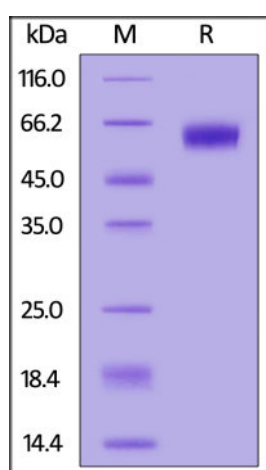
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

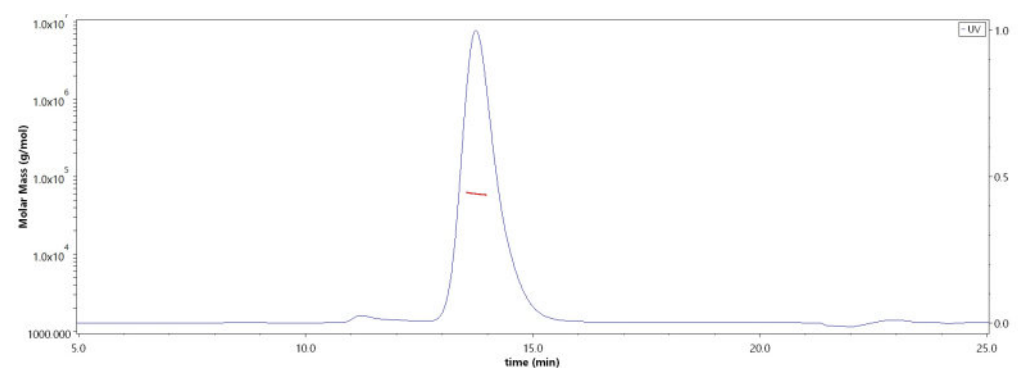
SDS-PAGE



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

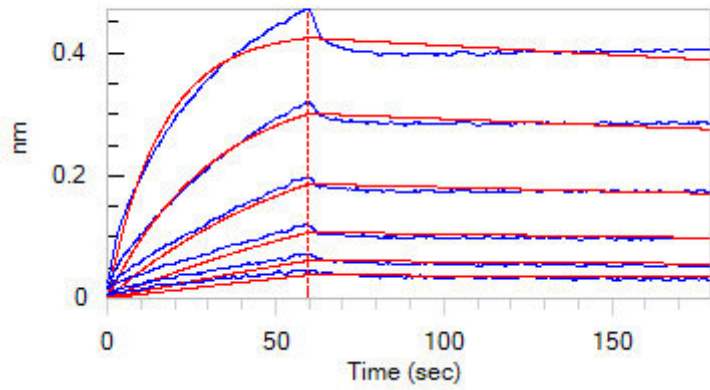
Bioactivity-BLI

SEC-MALS



The purity of Biotinylated Human DDR1, His,Avitag™ (Cat. No. DD1-H82E9) is more than 90% and the molecular weight of this protein is around 51-69 kDa verified by SEC-MALS.

[Report](#)



Loaded Biotinylated Human DDR1, His,Avitag (Cat. No. DD1-H82E9) on SA Biosensor, can bind Native Human Collagen I protein with an affinity constant of 0.603 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.