# Human Dkk-1 Protein, Fc Tag (MALS verified)

Catalog # DK1-H5258

## Synonym

DKK1,SK

## Source

Human Dkk-1, Fc Tag(DK1-H5258) is expressed from human 293 cells (HEK293). It contains AA Thr 32 - His 266 (Accession # NP_036374.1 ).
Predicted N-terminus: Thr 32

## Molecular Characterization

| Dkk-1(Thr 32 - His 266) NP_036374.1 | Fc(Pro 100 - Lys 330) P01857 |
|---|---|

This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 52.4 kDa. The protein migrates as 67-85 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.

>90% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

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

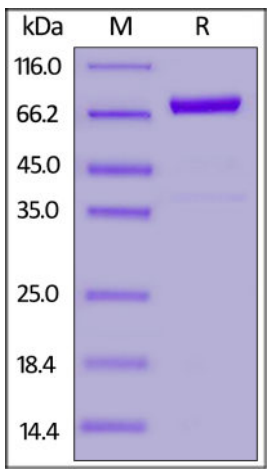
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

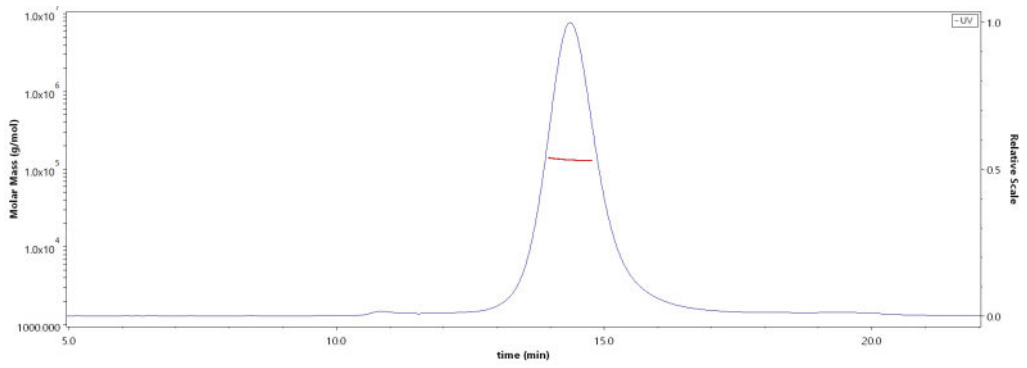
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



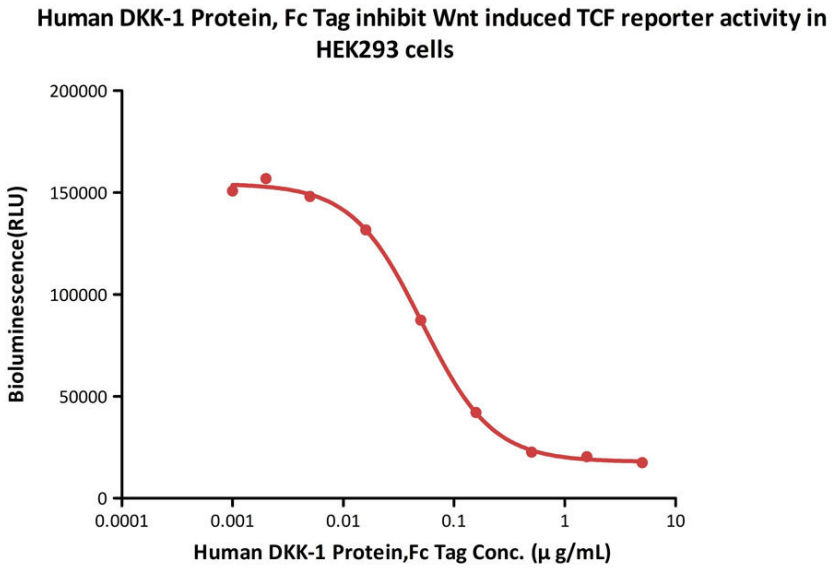

Human Dkk-1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

## SEC-MALS




The purity of Human Dkk-1, Fc Tag (Cat. No. DK1-H5258) is more than 90% and the molecular weight of this protein is around 118-145 kDa verified by SEC-MALS.
Report

## Bioactivity-Bioactivity CELL BASE




Human Dkk-1 Protein, Fc Tag (MALS verified) (Cat. No. DK1-H5258) inhibits Wnt induced TCF reporter activity in HEK293 cells. Human Dkk-1 inhibits a constant dose of 0.03 μg/mL of Wnt surrogate. The EC50 for this effect is 0.051 μg/mL.

## Background

Members of the dickkopf-related protein family (DKK-1, -2, -3, and -4) are secreted proteins with two cysteine-rich domains separated by a linker region. And DKK1 takes part in embryonic development through its inhibition of the WNT signaling pathway, binds to LRP6 with high affinity and prevents the Frizzled-Wnt-LRP6 complex formation in response to Wnts. DKK1 promotes LRP6 internalization and degradation when it forms a ternary complex with the cell surface receptor Kremen.DKK1 not olny functions as a head inducer during development, but also regulates joint remodeling and bone formation, which suggests roles for DKK1 in the pathogenesis of rheumatoid arthritis and multiple myeloma. More recently research reported, DKK1 impacts eye development from a defined developmental time point on, and is critical for lens separation from the surface ectoderm via β-catenin mediated Pdgfrα and E-cadherin expression.

## Clinical and Translational Updates

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