

Product Sheet

DKK-1 Fc fusion, human recombinant

Catalog # DKKFc-050; DKKFc-250; DKKFc-1000

Description DKK-1, Dickkopf-related protein-1, is a member of the DKK protein family which includes DKK-1 through DDK-4. DKK was originally identified as a head-forming molecule in *Xenopus*. Mechanistic studies showed that DKK-1 inhibits the Wnt / β -catenin signaling pathway by forming inhibitory complexes with co-receptor LRP5/6. Inhibition of Wnt/ β -catenin signaling is essential for posterior patterning and anterior development in vertebrates, supported by the discovery that DKK-1 knock-out mice lack head formation.

When DKK-1 is fused to the Fc fragment of human IgG1. This fusion renders stability of the protein in vitro and in vivo without significant loss of activity. StemRD expresses DKK-1 Fc fusion in human 293 cells and purifies it by protein A column.

Formulation Lyophilized in sterile filtered solution of PBS.

Reconstitution Before reconstitution, a brief spin is recommend to drive down any material dislodged from the bottom of the tube. The lyophilized protein should be reconstituted in sterile H₂O to a desired concentration.

Stability The lyophilized protein is stable for at least one year if stored at -80 degree C. Reconstituted protein is stable for at least four weeks at 4 degree C, but should be stored in aliquots at -80 degree C for longer term. Avoid repeated freeze and thaw.

Purity Greater than 90% as determined by SDS-PAGE analysis

Biological Activity The activity was determined by using a TCF reporter gene assay in cultured human cells. The IC₅₀ ranges from 200 - 1000 ng/ml in the inhibition of 100 ng/mL WNT-3a activity. Activity in other assays should be determined by each individual setting.

Country of Origin USA

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