Recombinant Human Dickkopf Homolog 1 (DKK1)

Catalog Number PHC9214 (10 µg), PHC9215 (25 µg), PHC9211 (100 µg), PHC9213 (1 mg)

Pub. No. MAN0003489 Rev. A.0

Product specifications

Lot number	See product label.
Molecular weight	42 kDa
Purity	>95% as determined by SDS PAGE analysis.
Amino acid sequence	TLNSVLNSNA IKNLPPPLGG AAGHPGSAVS AAPGILYPGG NKYQTIDNYQ PYPCAEDEEC GTDEYCASPT RGGDAGVQIC LACRKRRKRC MRHAMCCPGN YCKNGICVSS DQNHFRGEIE ETITESFGND HSTLDGYSRR TTLSSKMYHT KGQEGSVCLR SSDCASGLCC ARHFWSKICK PVLKEGQVCT KHRRKGSHGL EIFQRCYCGE GLSCRIQKDH HQASNSSRLH TCQRH
Biological function	DKK1 binds to the Wnt co-receptors LRP5/6 and is a high affinity ligand for the transmembrane proteins Kremen1 and 2.
Biological activity	In a functional ELISA, immobilized recombinant human LRP6/Fc chimera receptor (3 µg/mL, 100 µL/well) will bind recombinant human DKK1 with linear range of ≤40 ng/mL. Determine the optimal concentration for each specific application using an initial dose response assay.
Formulation	Lyophilized, carrier free.
Sterility	Filtered before lyophilization through a 0.22 micron sterile filter.
Endotoxin	<0.1 ng/µg
Production	Produced in Human Embryonic Kidney 293 cells and purified via sequential chromatography.
Reconstitution recommendation	Centrifuge the vial briefly, before opening to bring the contents to the bottom. Reconstitute the lyophilized protein in sterile, distilled water to a concentration of 0.1–0.5 mg/mL. Apportion the reconstituted protein into working aliquots and store at ≤ –20°C. Make any further dilutions of the reconstituted protein in low endotoxin medium or a buffered solution containing a carrier protein such as heat inactivated FCS or tissue culture grade BSA.
Suggested working dilutions	The optimal concentration should be determined for each specific application.
Storage	Store the lyophilized protein at 2–8°C or –20°C long term, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤ –20°C. Avoid repeated freeze-thaw cycles.
Expiration date	Expires one year from date of receipt when stored as instructed.
References	Glinka, A, Wu, W, Delius, H, Monaghan, AP, Blumenstock, C, and Niehrs, C. (1998) Dickkopf-1 is a member of a new family of secreted proteins and functions in head induction. Nature, 391:357-362. Mao, B, Wu, W, Li, Y, Hoppe, D, Stannek, P, Glinka, A, and Niehrs, C. (2001) LDL-receptor-related protein 6 is a receptor for Dickkopf proteins. Nature, 411_321-325. Mao, B, Wu, W, Davidson, G, Marhold, J, Li, M, Mechler, B, Delius, H, Hoppe, D, Stannek, P, Walter, C, Glinka, A, and Niehrs, C. (2002) Kremen proteins are Dickkopf receptors that regulate Wnt/β-catenin signaling. Nature, 417:664-667. Pinzone, JJ, Hall, BM, Thudi, NK, Vonau, M, Qiang, YW, Rosol, TJ, and Shaughnessy, JD. (2009) The role of Dickkopf-1 in bone development, homeostasis, and disease. Blood, 113:517-525.

Limited product warranty

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Explanation of Symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

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For descriptions of symbols on product labels or product documents, go to **thermofisher.com/symbols-definition**.

The information in this guide is subject to change without notice.