

DKK-1 Protein, Mouse (CHO)

Cat. No.:	HY-P7154
Synonyms:	rMuDKK-1; mDkk-1; Dickkopf-1
Species:	Mouse
Source:	CHO
Accession:	O54908 (S30-H272)
Gene ID:	13380
Molecular Weight:	Approximately 19-22 kDa due to the glycosylation.

PROPERTIES

AA Sequence	<p>S A T L N S V L I N S N A I K N L P P P L G G A G G Q P G S A V S V A P G V L Y</p> <p>E G G N K Y Q T L D N Y Q P Y P C A E D E E C G S D E Y C S S P S R G A A G V G</p> <p>G V Q I C L A C R K R R K R C M R H A M C C P G N Y C K N G I C M P S D H S H F</p> <p>P R G E I E E S I I E N L G N D H N A A A G D G Y P R R T T L T S K I Y H T K G</p> <p>Q E G S V C L R S S D C A A G L C C A R H F W S K I C K P V L K E G Q V C T K H</p> <p>K R K G S H G L E I F Q R C Y C G E G L A C R I Q K D H H Q A S</p>
Biological Activity	<p>1.The ED₅₀ is <6 µg/mL as measured in stimulation of alkaline phosphatase activity using CCl-226 cells.</p> <p>2.Measured by its ability to inhibit Wnt3a induced alkaline phosphatase production by C3H10T1/2 cells. The ED₅₀ for this effect is approximately 0.1852 µg/mL in the presence of 10 ng/mL of mouse Wnt3a, corresponding to a specific activity is 5.399×10³ units/mg.</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS.
Endotoxin Level	<0.2 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Mature mouse Dkk-1 is a 40 kDa glycosylated protein that shares 86%, 96%, 83% and 82% amino acid (aa) sequence identity
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with human, rat, rabbit and bovine Dkk-1, respectively. It also shares 41% and 36% aa identity with human Dkk-2 and Dkk-4, respectively^[1]. Dkk1 is a secreted Wnt inhibitor and member of a distinct multigene family, this inhibition plays a key role in heart, head and forelimb development during anterior morphogenesis of the embryo^{[2][3]}.

REFERENCES

- [1]. Glinka A, et al. Dickkopf-1 is a member of a new family of secreted proteins and functions in head induction. *Nature*. 1998 Jan 22;391(6665):357-62.
- [2]. Mukhopadhyay M, et al. Dickkopf1 is required for embryonic head induction and limb morphogenesis in the mouse. *Dev Cell*. 2001 Sep;1(3):423-34.
- [3]. Niida A, et al. DKK1, a negative regulator of Wnt signaling, is a target of the beta-catenin/TCF pathway. *Oncogene*. 2004 Nov 4;23(52):8520-6.
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Caution: Product has not been fully validated for medical applications. For research use only.

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