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Datasheet for ABIN7539307

DLK1 Protein (Soluble) (His tag)

Overview

Quantity:	5 µg
Target:	DLK1
Protein Characteristics:	Soluble
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DLK1 protein is labelled with His tag.

Product Details

Purpose:	DLK-1/Pref-1, soluble
Sequence:	AECFPACNPQ NGFCEDDNVC RCQPGWQGPL CDQCVTSPGC LHGLCGEPGQ CICTDGWDGE LCDRDVRACS SAPCANNGTC VSLDDGLYEC SCAPGYSGKD CQKKDGPCVI NGSPCQHGGT CVDDEGRASH ASCLCPPGFS GNFCEIVANS CTPNPCENDG VCTDIGGDFR CRCPAGFIDK TCSRPTNCA SSPCQNGGTC LQHTQVSYEC LCKPEFTGLT CVKKRALSPQ QVTRLPSGYG LAYRLTPGVH ELPVQQPEHR ILKVSMKELN KKTPLEHHHH HH
Characteristics:	Length (aa):282
Purity:	> 98 % by SDS-PAGE

Target Details

Target:	DLK1
Alternative Name:	DLK-1/Pref-1 (DLK1 Products)

Target Details

Background: Protein delta homolog 1, pG2, Fetal antigen 1, FA1, ZOG,Delta-like 1 (DLK1), also known as Pref-1 and FA1, is a transmembrane protein pertaining to the epidermal growth factor superfamily. DLK1 affects several differentiation processes, including adipogenesis, muscular and neuronal differentiation, bone differentiation, and haematopoiesis. Several reports support that DLK1 may operate as a non-canonical ligand of the NOTCH pathway. Since the NOTCH signaling pathway is essential for vascular development and physiology by controlling angiogenesis in pre- and post-natal life, it was reasoned that DLK1 could contribute to regulate this process in adult endothelial cells through the interaction with NOTCH receptors. It was found that overexpression of DLK1 inhibits migration and angiotube formation in mammalian vascular endothelial cells and disrupts normal embryonic vascularization in zebrafish. Genetic ablation of DLK1 in mice is associated with increased angiogenesis in vitro and with focal areas of retinal hyper-vascularization. Specific knockdown of the orthologous Dlk1 of zebrafish results in ectopic angiogenesis. Moreover, in a tumor angiogenesis model in zebrafish, suppression of Dlk1 promotes vessel migration towards the tumor cell mass. It was also found that the NOTCH signaling pathway is targeted by DLK1 in the context of angiogenesis and that DLK1 antagonizes NOTCH-dependent signaling in endothelial cells, while, in contrast, this signaling is enhanced in Dlk1-null mice. Collectively, these results revealed a previously unknown role for DLK1 in the vasculature as a regulator of NOTCH-mediated angiogenesis.

Molecular Weight: 30.2 kDa

Gene ID: 8788

NCBI Accession: [NM_003836](#), [NP_003827](#)

UniProt: [P80370](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: water,Centrifuge vial prior to opening. Human sDLK1/Pref1 should be reconstituted in water to a concentration of 0.1 mg/mL. This solution can be diluted in water or other buffer solutions or stored at -20 °C.

Buffer: PBS

Handling

Storage: RT, 0 °C, -20 °C

Storage Comment: The lyophilized human sDLK1/Pref1, though stable at room temperature, is best stored desiccated below 0°C. Reconstituted human sDLK1/Pref1 should be stored in working aliquots at -20°C.