

32-20594: Recombinant Human sDLL-1(Discontinued)

Alternative Name : soluble DLL-1, Delta-like protein 1, Delta-1

Description

Source:HEK293 cells

Human soluble DLL-1 comprises the extracellular signaling domain of DLL-1, a member of the Delta/Serrate/Lag-2 (DSL) family of single-pass type I trans-membrane proteins that serve as ligands for Notch receptors. It is expressed primarily in the heart, pancreas and epidermis. DLL-1 functions to specifically activate the Notch-1 and Notch-2 receptors. Proteolytic cleavage of DLL-1 produces a secreted extracellular domain, sDLL-1, that interacts with Notch receptors expressed on adjacent cells. Notch signaling plays an essential role in controlling cell fate decisions during prenatal development and postnatal stem cell renewal, and differentiation in many tissues. Human sDLL-1 blocks monocyte differentiation into macrophages, but permits differentiation into dendritic cells. In hematopoietic progenitor cells, hsDLL-1 suppresses differentiation into B-cells, while promoting differentiation into T-cells and NK cell precursors. In cell culture, human sDLL-1 has been shown to promote expansion of hematopoietic progenitor cells and suppress apoptosis by inhibiting differentiation. Overexpression of Notch receptors appears to inhibit differentiation in several mammalian cell lines, and increasing evidence suggests that Notch signaling is frequently downregulated in human malignancies. The human DLL-1 gene consists of a 528 amino acid extracellular domain with one DSL domain, eight EGF-like repeats, a 23 amino acid transmembrane domain, and a 155 amino acid cytoplasmic domain. The calculated molecular weight of Recombinant Human sDLL-1 is 56.3 kDa.

Product Info

Amount : 5 µg / 25 µg

Purification : Purity:>= 95% by SDS-PAGE gel and HPLC analyses.

Content : This recombinant protein is supplied in lyophilized form.

Amino Acid : SGVFELKLQE FVNKKGLLGN RNCCRGGAGP PPCACRTFFR VCLKHYQASV SPEPPCTYGS AVTPVLGVDS
FSLPDGGGAD SAFSNPIRFP FGFTWPGTFS LIIEALHTDS PDDLATENPE RLISRLATQR HLTVGEEWSQ
DLHSSGRTDL KYSYRFVCDE HYYGEGCSVF CRPRDDAFGH FTCGERGEKV CNPGWKGPYC TEPICLPGCD
EQHGFCDKPG ECKCRVGWQG RYCDECIRYP GCLHGTCQQP WQCNCQEGWG GLFCNQDLNY
CTHHKPKNG ATCTNTGQGS YTCSCRPGYT GATCELGIDE CDPSPCKNGG SCTDLENSYS CTCPPGFYK
ICELSAMTCA DGPCFNNGRC SDSPDGGYSC RCPVGYSGFN CEKKIDYCSS SPCSNGAKCV DLGDAYLCRC
QAGFSGRHCD DNVDDCASSP CANGGTCRDG VNDFSTCPP GYTGRNCSAP VSRCEHAPCH
NGATCHERGH RYVCECARGY GGPNCQFLLP ELPPGPAVVD LTEKLEGQGG PF

Application Note

Determined by the dose dependent growth suppression of the human acute monocytic leukemia cell line, THP-1. sDLL-1 inhibits the proliferation in THP-1 cells using a concentration of 3.0-5.0 Åµg/ml.