Recombinant Human WNT1

Cat. No. WNT1-560H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	This recombinant human Wnt-1 produced in*E.coli*is a 38.4 kDa, non-glycosylated protein containing 343 amino acid residues.
Species	Human
Source	E.coli
Description	Wnt-1 is a secreted protein that signals through the Frizzled family of cell surface receptors and is required for normal embryonic development. Wnt-1 activation induces a complex signaling cascade that ultimately leads to the increased expression of over fifty genes. An important component of Wnt-1 signaling is the stabilization, and resulting accumulation, of the intracellular signaling protein, beta-catenine. Wnt signaling induces and maintains the transformed phenotype and, in certain embryonic cell lines, supports self renewal in the absence of significant differentiation. Elevated levels of Wnt proteins are associated with tumorigenesis and are present in numerous human breast cancers. Mature human Wnt-1 is a glycosylated protein containing 343 amino acid residues.
Amino Acid Sequence	ANSSGRWWGI VNVASSTNLL TDSKSLQLVL EPSLQLLSRK QRRL IRQNPG ILHSVSGGLQ SAVRECKWQF RNRRWNCPTA PGPHLFGKIV NRGCRETAFI FAITSAGVTH SVARSCSEGS IESCTCDYRR RGPG GPDWHW GGCSDNIDFG RLFGREFVDS GEKGRDLRFL MNLHNNEAGR TTVFSEMRQE CKCHGMSGSC TVRTCWMRLP TLRAVGDVLR DRFD GASRVL YGNRGSNRAS RAELLRLEPE DPAHKPPSPH DLVYFEKSPN FCTYSGRLGT AGTAGRACNS SSPALDGCEL

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	LCCGRGHRTR TQRVT ERCNC TFHWCCHVSC RNCTHTRVLH ECL
Supplied	Lyophilized powder with no additives.
Purity	>98% by SDS-Page analysis. Endotoxin level is less than 0.1ng per ug (1EU/ug) of Wnt-1.
Reconstitution	The lyophilized protein is soluble in water and most aqueous buffers. The lyophilized powder should be reconstituted in water to a max concentration of 0.1-1mg/ml. Allow to set at least 30 minutes at 4°C, tighten cap and rotate to reconstitute any material on sides of vial. If desired, you can centrifuge at 1000 rpm for 1 minute to concentrate volume in bottom of vial. This solution can be diluted into water or other buffered solutions or stored at 4°C for up to 1 week or at - 20°C for future use.
Reactivity	The $ED_{50}$was determined by its ability to enhance BMP-2 induced alkaline phosphatase production by murine ATDC5 cells. The expected $ED_{50}$for this effect is 1.5 - 2.5 ng/ml in the presence of 200 ng/ml of human BMP-2.
Storage	The lyophilized powder is stable at room temperature for a few weeks but it is best stored desiccated at -20℃. Reconstituted human Wnt-1 should be stored in working aliquots at -20℃. Avoid frequent freeze thaw cycles.

GENE INFORMATION

Gene Name	WNT1 wingless-type MMTV integration site family, member 1 [Homo sapiens]
Synonyms	WNT1; wingless-type MMTV integration site family, member 1; INT1; Wingless-type MMTV integration site family, member 1 (oncogene INT1); Proto-oncogene protein Wnt-1
Gene ID	7471

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mRNA Refseq	NM_005430
Protein Refseq	NP_005421
MIM	164820
UniProt ID	P04628
Chromosome Location	12q13
Pathway	Basal cell carcinoma; Hedgehog signaling pathway; Melanogenesis; Pathways in cancer; Wnt signaling pathway
Function	receptor binding; signal transducer activity

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