



Product Data Sheet

Human Recombinant Wnt-3a Protein

Catalog Number: ORF.GF.WNT3A

Product Details	
Product Name	Human Recombinant Wnt-3a Protein
Catalog Numbers	ORF.GF.WNT3A-10, ORF.GF.WNT3A-50, ORF.GF.WNT3A-100, ORF.GF.WNT3A-500, ORF.GF.WNT3A-1000
Sizes	10 µg, 50 µg, 100 µg, 500 µg, 1000 µg
Species	Human
UniProt ID	NP_149122
Product Form	Lyophilized

Product Description	Product Image
<p>Wnt-3a is a key member of the Wnt family of secreted glycoproteins that regulate essential processes in embryonic development, tissue regeneration, and stem cell maintenance. Wnt-3a activates the canonical Wnt/β-catenin signaling pathway by binding to Frizzled and LRP5/6 receptors, leading to β-catenin stabilization and transcriptional activation of Wnt target genes involved in cell proliferation, differentiation, and fate determination.</p> <p>Wnt-3a is produced as a lipid-modified precursor and undergoes post-translational modifications critical for its secretion and bioactivity. It plays a vital role in anterior-posterior patterning, neural crest development, and limb formation. In adult tissues, Wnt-3a continues to influence cell renewal and homeostasis, particularly in the intestinal epithelium and hematopoietic systems. Recombinant Wnt-3a is widely used in vitro to maintain pluripotency in stem cells, drive mesodermal and endodermal lineage differentiation, and study cancer, developmental biology, and tissue engineering applications.</p>	

For research applications only. Not for diagnostic or therapeutic use.

Product Specifications		
Protein Description	352-amino acid mature human Wnt-3a variant consisting of residues Ala1 to Lys352	
Expression System	Available upon request	
Amino Acid Sequence	APLGYFLLL CSLKQALGSY PIWWSLAVGP QYSSLGSQPI LCASIPGLVP KQLRFCRNYV EIMPSVAEGI KIGIQECQHQ FRGRRWNCTT VHDLSAIFGP VLDKATRESA FVHAIASAGV AFAVTRSCAE GTAAICGCSS RHQGSPGKGW KWGGCSEDIE FGGMVSREFA DARENRPDAR SAMNRHNNEA GRQAIASHMH LKCKCHGLSG SCEVKTCWWS QPDFRAIGDF LKDKYDSASE MVVEKHRESR GWVETLRPRY TYFKVPTERD LVYYEASPNF CEPNPETGSF GTRDRTCNVS SHGIDGCDLL CCGRGNARA ERRREKRCV FHWFCCYVSCQ ECTRVYDVHT CK	
Molecular Weight	SDS-PAGE	37.4 kDa (Expected)
Purity	SDS-PAGE	> 95%
Endotoxin	LAL	<1 EU/microgram
Bioactivity	Determined by its ability to induce alkaline phosphatase production in MC3T3-E1 mouse preosteoblast cells.	Biologically Active

Product Preparation	
Shipping Temperature	Ambient
Form	Lyophilized
Reconstitution Instructions	Reconstitute with PBS + 0.1% BSA + 0.1% CHAPS

Storage and Stability		
	Temperature	Storage Time
Liquid Form	2°C to 8°C	1 month
Liquid Form	-20°C to -80°C	3 months

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