

Datasheet for ABIN7539357 **WNT3A Protein (His tag)**



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Overview

Quantity:	25 µg
Target:	WNT3A
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This WNT3A protein is labelled with His tag.

Product Details

Purpose:	Wnt-3a
Sequence:	MSYPIWWSLA VGPQYSSLGS QPILCASIPG LVPKQLRFCR NYVEIMPSVA EGIKIGIQEC QHQRFRGRWN CTTVHDSLAI FGPVLDKATR ESAFVHAIAS AGVAFVTRTS CAEGTAAICG CSSRHQGSPG KGWKWGGCSE DIEFGGMVSR EFADARENRP DARSAMNRHN NEAGRQAIAS HMHLKCKCHG LSGSCEVKTC WWSQPDFRAI GDFLKDKYDS ASEMVEKHR ESRGWVETLR PRYTYFKVPT ERDLVYYEAS PNFCEPNPET GSFGTRDRTC NVSSHGIDGC DLLCCGRGHN ARAERRREKC RCVFWCCYV SCQECTRVYD VHTCKLEHHH HHH
Specificity:	Chromosomal location:1q42
Characteristics:	Length (aa):343
Purity:	> 90 % by SDS-PAGE and Coomassie stain

Target Details

Target:	WNT3A
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Target Details

Alternative Name: [Wnt-3a \(WNT3A Products\)](#)

Background: Wnt-3a, Wnt-3a is one of about 19 vertebrate members of the Wingless-type MMTV integration site (Wnt) family of highly conserved, cysteine-rich secreted glycoproteins important for normal developmental processes. Wnts bind to receptors of the Frizzled family in conjunction with a coreceptor of the low-density lipoprotein receptor-related protein family (LRP-5 or -6), or the Ryk atypical receptor tyrosine kinase. During development, Wnt-3a is a morphogen that is thought to coordinate somitogenesis and mesoderm boundary determination. When Wnt-3a is deleted, mice fail to develop a hippocampus, and show defects in anterior-posterior patterning, somite development and tailbud formation. Wnt-3a has also been implicated in chondrocyte differentiation. Like other Wnts, Wnt-3a is modified by palmitate addition (at Cys 77) following glycosylation, which increases its hydrophobicity, secretion and activity. A second site at Ser 209 modified by palmitoleic acid also contributes. Human Wnt-3a shares 96 % amino acid (aa) identity with mouse, bovine and canine Wnt-3a, and 89 %, 86 % and 84 % aa identity with chicken, Xenopus and zebrafish Wnt-3a, respectively. It also shares 87 % aa identity with Wnt-3. Human Wnt-3a is a 44 kDa secreted hydrophobic glycoprotein containing a conserved pattern of 24 cysteine residues.

Molecular Weight: 38.6 kDa

Gene ID: 89780

NCBI Accession: [NM_033131](#), [NP_149122](#)

UniProt: [P56704](#)

Pathways: [WNT Signaling](#), [Regulation of Muscle Cell Differentiation](#), [Regulation of Cell Size](#), [Positive Regulation of Endopeptidase Activity](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: 50 mM acetic acid, Human Wnt3a should be reconstituted in 50 mM acetic acid to a concentration of 0.1 mg/mL. This solution can be diluted in water or other buffer solutions or stored at -20 °C.

Storage: RT, 0 °C, -20 °C

Handling

Storage Comment: The lyophilized human Wnt3a, though stable at room temperature, is best stored desiccated below 0°C. Reconstituted human Wnt3a should be stored in working aliquots at -20°C.