

Recombinant Mouse Wingless-Related MMTV Integration Site 5A

Cat. No. Wnt5a-2051M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Wnt5a is purified from conditioned medium from <i>L-Wnt-5a-expressing mouse fibroblast cells</i> . It is a 38.6kDa lipid-modified glycoprotein consisting of 343 amino acid residues.
Species	Mouse
Source	Mouse Fibroblast
Description	Wnt-5a is one of the most highly investigated non-canonical Wnt proteins and has been implicated in almost all aspects of non-canonical Wnt signaling. Wnt-5a has been well-documented in its ability to antagonize canonical Wnt/ β -catenin signaling, either by promoting the degradation of β -catenin or by down-regulating β -catenin-induced reporter gene expression 3. Wnt-5a has complex roles and is implicated in various types of cancer. It acts as a tumor suppressor for mammary, B cell, colon, and uroepithelial cancer cells, but is up-regulated in melanomas, where expression levels correlate with severity of metastasis. Emerging evidence suggests that the different functions of Wnt-5a depend on the availability of key receptors. Mouse Wnt-5a shows 98% amino acid identity to human Wnt-5a.
Purity	Greater than 75% by SDS-PAGE gel.
Formulation	Lyophilized in sterile-filtered solution in 20 mM Tris, pH 7.5, 0.5 M NaCl and 1% CHAPS containing no additives.

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Amino Acid Sequence	QVVEANSWW SLGMNNPVQM SEVYIIGAQP LCSQLAGLSQ GQKKLCHLYQ DHMQYIGEGAKTGIKECQYQ FRHRRWNCST VDNTSVFGRV MQIGSRETAF TYAVSAAGVV NAMSRACREGELSTCGCSRA ARPKDLPRDW LWGGCGDNID YGYRFAKEFV DARERERIHA KGSYESARIL MNLHNNNEAGR RTVYNLADVA CKCHGVSGSC SLKTCWLQLA DFRKVG DALK EKYDSAAAMLNSRGKLVQV NSRFNSPTTQ DLVYIDPSD YCVRNESTGS LGTQGRLCNK TSEGMDGCEL MCCGRGYDQF KTVQTERCHC KFWCCYVKC KKCTEIVDQF VCK.
Endotoxin Level	< 1.0 EU/μg of the cytokine as determined by the LAL method.
Biologic Activity	Measured by its ability to inhibit Wnt-3a induced alkaline phosphatase production by C3H/10T1/2 fibroblasts. The ED50 for this effect is 0.49 μg/mL, in the presence of 20 ng/mL recombinant mouse Wnt-3a.
Storage And Handling	Recombinant Mouse Wnt-5a is stable in the lyophilized format for six months at -20°C to -80°C. To reconstitute, centrifuge briefly and dissolve in sterile water to yield a stock solution of no less than 0.1 mg/ml of Wnt-5a. Reconstituted Wnt-5a should be stored in working aliquots at -20 °C for up to six months. Multiple freeze/thaw cycles will result in significant loss of activity.
GENE INFORMATION	
Gene Name	Wnt5a wingless-related MMTV integration site 5A [<i>Mus musculus</i>]
Synonyms	wingless-related MMTV integration site 5A; Wnt-5a; 8030457G12Rik; Wnt5a; protein Wnt-5a; OTTMUSP00000023050
Gene ID	22418
mRNA Refseq	NM_009524

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Protein Refseq	NP_033550
UniProt ID	P22725
Chromosome Location	14 A3; 14 7.8 cM
Pathway	Basal cell carcinoma; Hedgehog signaling pathway; Melanogenesis; Pathways in cancer; Wnt signaling pathway
Function	signal transducer activity; protein binding; receptor binding

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