



## Anti-human Wnt3a

20190801BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>102-PA140S</b>
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

**Preparation:** Produced from sera of rabbits pre-immunized with highly pure (>98%) recombinant human Wnt3a (Ser19-Lys352) derived from E. coli.

### Target Background

<b>Synonyms:</b>	Protein Wnt-3a
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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.

### References

1. Saitoh T et al, Biochem Biophys Res Commun 284(5):1168-75, 2001
2. Huguot EL et al, Cancer Res 54(10):2615-21, 1994
3. Bourhis E et al, J Biol Chem 285(12):9172-9, 2010
4. Jadulco RC et al, J Cell Sci 123(Pt 19):3357-67, 2010
5. Doubravska L et al, Cell Signal 23(5):837-48, 2011
6. Chien-Hsiung Yu et al, Eur J Immunology 44(5):1480-1490, 2014

### Database References Antigen

<b>Protein RefSeq:</b>	NP_149122
<b>Uniprot ID:</b>	P56704
<b>mRNA RefSeq:</b>	NM_033131

### Product Specifications

<b>Species reactivity</b>	human
<b>Clone/Ab feature</b>	rabbit IgG
<b>Cross reactivity</b>	n.d.
<b>Host</b>	rabbit
<b>Clonality</b>	polyclonal
<b>Purification</b>	Protein A purified
<b>Immunogen</b>	recombinant human Wnt3a (RT #400-022)
<b>Formulation</b>	Lyophilized
<b>Buffer</b>	5 mM PBS, pH 7.2

**Stability:** The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

**Reconstitution:** Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

### Applications

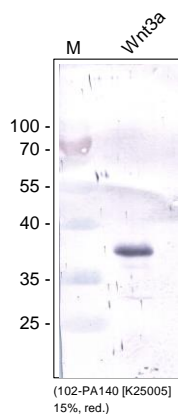
**Western Blot:** Use at 1-5 µg/ml

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**



## Anti-human Wnt3a

### Handling/Applications



**Fig. 1:** Western analysis of recombinant human Wnt3a [Cat# 400-022] using an anti-human Wnt3a polyclonal antibody.



**Fig. 2:** Western analysis of recombinant human and mouse Wnt3a [Cat# 400-022; M30-231] using a rabbit anti-human Wnt3a antibody [Cat# 102-PA140] directed against recombinant human Wnt3a. As expected there is a cross reactivity with mouse Wnt3a. As secondary antibody an AP-conjugated goat anti-rabbit antibody was used.