



Anti-mouse Wnt3a

20190801BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

| | |
|--------------------|----------------------------|
| Cat.-no.: | 103-PA15S |
| Size: | 100 µg |
| Lot. No.: | According to product label |
| Country of origin: | Germany |

Preparation: Purified from sera of rabbits pre-immunized with pure (>85%) recombinant mouse Wnt3a (Ser19 –Lys352) derived from E. coli.

Target Background

| | |
|------------------|----------------|
| Synonyms: | Protein Wnt-3a |
|------------------|----------------|

Wnt-3a belongs to the Wnt family of signaling proteins that play a key role in maintaining the integrity of embryonic and adult tissues. Expression of Wnt-3a occurs primarily along the dorsal midline across overlapping regions of the Central Nervous System (CNS). Wnt-3a signaling is essential for various morphogenetic events, including embryonic patterning, cell determination, cell proliferation, CNS development, and cytoskeletal formation. Like other members of this family, Wnt-3a contains a highly conserved lipid-modified, cysteine-rich domain that is essential for cell signaling. During a biochemical process called the canonical Wnt pathway, Wnt family members bind to and activate, seven-pass transmembrane receptors of the Frizzled family, ultimately leading to the disruption of β-catenin degradation. Intracellular accumulation of β-catenin increases translocation of the protein into the nucleus, where it binds to TCF/LEF transcription factors to promote gene expression. Lack of Wnt signaling disrupts transcriptional activation of tumor suppressor genes, and has been shown to result in neoplastic transformation, oncogenesis, and human degenerative diseases. Recombinant Murine Wnt-3a is a monomeric glycoprotein containing 334 amino acid residues.

References

1. Li X et al, FASEB J, fj201802711R, 2019
2. Pacella I et al, Cancer Immunol Res, 6(8):953-964, 2018
3. Sinnberg T et al, Mol Cancer, 17:17(1):59, 2018
4. Fuster-Matanzo A et al, Exp Biol Med, 243(1):22-28, 2018
5. Sebastian A et al, PLoS One, 12(11), 2017
6. Zhang Y et al, Mol Cell Biol, 37(12), 2017
7. Qi L et al, Int J Mol Sci, 16(8):18564-79, 2015.

Database References Antigen

| | |
|------------------------|--------------|
| Protein RefSeq: | NP_033548.1 |
| Uniprot ID: | P27467 |
| mRNA RefSeq: | NM_009522.2. |

Product Specifications

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|---------------------------|---------------------------------------|
| Species reactivity | mouse |
| Clone/Ab feature | Rabbit IgG |
| Cross reactivity | ND |
| Host | rabbit |
| Clonality | polyclonal |
| Purification | Protein A purified |
| Immunogen | Recombinant mouse Wnt3a (RT #M30-231) |
| Formulation | lyophilized |
| Buffer | PBS |

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 1-5 µg/ml

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



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Handling/Applications

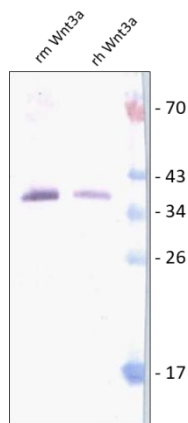


Fig. 1: Western analysis of recombinant mouse and human Wnt3a [Cat# M30-231; 400-022] using a rabbit anti-mouse Wnt3a antibody [Cat# 103-PA15] directed against recombinant mouse Wnt3a. As expected there is a cross reactivity with human Wnt3a. As secondary antibody an AP-conjugated goat anti-rabbit antibody was used.