

ZYMED® Laboratories

invitrogen immunodetection

Qty: 100µg/400 µL

Rabbit anti-WNT2B/WNT13

Catalog No. 38-3500

Lot No.

Rabbit anti-WNT2B/WNT13

FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/mL in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is epitope-affinity purified from rabbit antiserum.

PAD: ZMD.368

IMMUNOGEN

Synthetic peptide derived from an internal region of the human WNT2B/WNT13 protein.

SPECIFICITY

This antibody reacts with the human, mouse and rat WNT2B/WNT13 proteins. It recognizes both human WNT13A and WNT13B isoforms. On Western blots, it identifies a band at ~41 kDa.

REACTIVITY

Reactivity has been confirmed with mouse WNT2B/WNT13-pCMV-tag2-transfected 293T, human WNT13A- and WNT13B-pCR3-transfected HEK293 and SK-OV-3 cell lysates, and rat ovary homogenates.

Sample	Western Blotting	Immunoprecipitation (Native)
Human	+++*	ND
Mouse	+++*	0**
Rat	+++	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

*This antibody recognizes overexpressed protein in mouse and human. This antibody detects endogenous WNT2B/WNT13 in human SF-OV-3 cell lysates and rat ovary homogenate.

**No reactivity observed under conditions tested.

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1-3 µg/mL

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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BACKGROUND

WNTs have diverse roles in governing cell fate, proliferation, migration, and polarity during development, particularly in embryogenesis and carcinogenesis in adults¹⁻³. WNTs are transduced through at least three distinct intracellular signaling pathways, including the canonical WNT/ β -catenin, WNT/ Ca^{2+} and WNT polarity (also called 'planar polarity')^{2, 4, 5} pathways. Distinct sets of WNT and Frizzled ligand-receptor pairs activate each of these pathways and lead to unique cellular responses. The WNT/ β -catenin pathway primarily regulates cell fate determination during development, whereas the main function of the WNT polarity pathway is the regulation of cytoskeletal organization.

WNT2B/WNT13 is expressed in the embryonic mesoderm during gastrulation, and in the dorsal midline of the diencephalons and mesencephalon, the heart primordial, the lung bud periphery, and in the otic and optic vesicles at later stages.⁶ WNT2B is expressed in organs regulated by epithelial-mesenchymal interactions in the mouse embryo, such as the developing kidney, lung, salivary gland, gut, pancreas, adrenal gland, genital tubercle, eye and ear.⁷ WNT2B signaling induces ureter branching during early kidney organogenesis.⁷ WNT2B exists as 2 alternatively spliced isoforms (WNT2B1 and WNT2B2).⁸ WNT2B2 is preferentially expressed in NT2 cells, with the potential of neuronal differentiation.⁹ In some cases of gastric cancer, WNT2B2 up-regulation may lead to carcinogenesis through the activation of the β -catenin/TCF signaling pathway.⁹ WNT2B is expressed in the immature ovary, where the WNT signaling cascade may be involved in follicular development and ovarian function.¹⁰

REFERENCES

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RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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