10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RYK Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7677b

Product Information

Application	WB, IHC-P, E
Primary Accession	P34925
Other Accession	Q01887
Reactivity	Human, Mouse
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	67815
Antigen Region	561-591

Additional Information

Gene ID	6259
Other Names	Tyrosine-protein kinase RYK, RYK, JTK5A
Target/Specificity	This RYK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 561-591 amino acids from the C-terminal region of human RYK.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RYK Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RYK (HGNC:10481)
Synonyms	JTK5A
Function	May be a coreceptor along with FZD8 of Wnt proteins, such as WNT1, WNT3, WNT3A and WNT5A. Involved in neuron differentiation, axon guidance,

corpus callosum establishment and neurite outgrowth. In response to WNT3 stimulation, receptor C-terminal cleavage occurs in its transmembrane region and allows the C-terminal intracellular product to translocate from the cytoplasm to the nucleus where it plays a crucial role in neuronal development.

Cellular Location Cell membrane; Single-pass type I membrane protein. Nucleus {ECO:0000250|UniProtKB:Q01887} Cytoplasm {ECO:0000250|UniProtKB:Q01887}. Note=In cells that have undergone neuronal differentiation, the C-terminal cleaved part is translocated from the cytoplasm to the nucleus {ECO:0000250|UniProtKB:Q01887}

Tissue Location Observed in all the tissues examined.

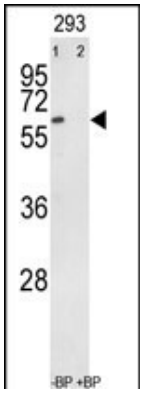
Background

RYK is an atypical member of the family of growth factor receptor protein tyrosine kinases, differing from other members at a number of conserved residues in the activation and nucleotide binding domains. This gene product belongs to a subfamily whose members do not appear to be regulated by phosphorylation in the activation segment. It has been suggested that mediation of biological activity by recruitment of a signaling-competent auxiliary protein may occur through an as yet uncharacterized mechanism. A nine nucleotide insertion in some transcripts results in the SLG variant. It is not established whether this is a product of alternative splicing or a second gene, since evidence for a second gene or pseudogene on chromosome 17 exists.

References

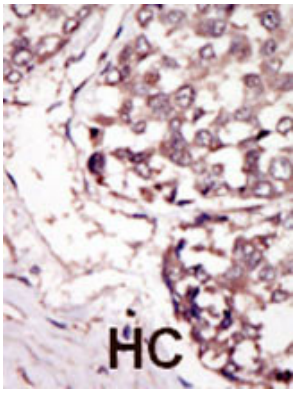
Trivier, E., et al., J. Biol. Chem. 277(25):23037-23043 (2002).
Katso, R.M., et al., Mol. Cell. Biol. 19(9):6427-6440 (1999).
Wang, X.C., et al., Mol. Med. 2(2):189-203 (1996).
Tamagnone, L., et al., Oncogene 8(7):2009-2014 (1993).
Stacker, S.A., et al., Oncogene 8(5):1347-1356 (1993).

Images



Western blot analysis of anti-hRYK-W576 Pab (Cat. #AP7677b) pre-incubated without(lane 1) and with(lane 2) blocking peptide in 293 cell line lysate. hRYK-W576(arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Citations

- The Wnt receptor Ryk is required for Wnt5a-mediated axon guidance on the contralateral side of the corpus callosum.
- Noncanonical Wnt signaling promotes osteoclast differentiation and is facilitated by the human immunodeficiency virus protease inhibitor ritonavir.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.