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

RET Antibody (N-term Q28) Blocking Peptide

Synthetic peptide
Catalog # BP7669c

Specification

RET Antibody (N-term Q28) Blocking Peptide - Product Information

Primary Accession P07949

RET Antibody (N-term Q28) Blocking Peptide - Additional Information

Gene ID 5979

Other Names
Proto-oncogene tyrosine-protein kinase receptor Ret, Cadherin family member 12, Proto-oncogene c-Ret, Soluble RET kinase fragment, Extracellular cell-membrane anchored RET cadherin 120 kDa fragment, RET, CDHF12, CDHR16, PTC, RET51

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7669c was selected from the N-term region of human RET . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RET Antibody (N-term Q28) Blocking Peptide - Protein Information

Name RET (HGNC:9967)

Synonyms CDHF12, CDHR16, PTC, RET51

Function
Receptor tyrosine-protein kinase involved in numerous cellular mechanisms including cell proliferation, neuronal navigation, cell migration, and cell differentiation upon binding with glial cell derived neurotrophic factor family ligands. Phosphorylates PTK2/FAK1. Regulates both cell death/survival balance and positional information. Required for the molecular mechanisms orchestration during intestine organogenesis; involved in the development of enteric nervous system and renal organogenesis during embryonic life, and promotes the formation of Peyer's patch-like structures, a major component of the gut-associated lymphoid tissue. Modulates cell adhesion via its cleavage by caspase in sympathetic neurons and mediates cell migration in an

integrin (e.g. ITGB1 and ITGB3)-dependent manner. Involved in the development of the neural crest. Active in the absence of ligand, triggering apoptosis through a mechanism that requires receptor intracellular caspase cleavage. Acts as a dependence receptor; in the presence of the ligand GDNF in somatotrophs (within pituitary), promotes survival and down regulates growth hormone (GH) production, but triggers apoptosis in absence of GDNF. Regulates nociceptor survival and size. Triggers the differentiation of rapidly adapting (RA) mechanoreceptors. Mediator of several diseases such as neuroendocrine cancers; these diseases are characterized by aberrant integrins-regulated cell migration. Mediates, through interaction with GDF15-receptor GFRAL, GDF15-induced cell-signaling in the brainstem which induces inhibition of food-intake. Activates MAPK- and AKT- signaling pathways (PubMed:28846097, PubMed:28953886, PubMed:28846099). Isoform 1 in complex with GFRAL induces higher activation of MAPK- signaling pathway than isoform 2 in complex with GFRAL (PubMed:28846099).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Endosome membrane; Single-pass type I membrane protein Note=Predominantly located on the plasma membrane. In the presence of SORL1 and GFRA1, directed to endosomes.

RET Antibody (N-term Q28) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

RET Antibody (N-term Q28) Blocking Peptide - Images

RET Antibody (N-term Q28) Blocking Peptide - Background

RET, a member of the cadherin superfamily, is one of the receptor tyrosine kinases, which are cell-surface molecules that transduce signals for cell growth and differentiation. This protein plays a crucial role in neural crest development, and the gene can undergo oncogenic activation in vivo and in vitro by cytogenetic rearrangement. Mutations i are associated with the disorders multiple endocrine neoplasia, type IIA, multiple endocrine neoplasia, type IIB, Hirschsprung disease, and medullary thyroid carcinoma.

RET Antibody (N-term Q28) Blocking Peptide - References

Da Silva, A.M., et al., J. Clin. Endocrinol. Metab. 88(11):5438-5443 (2003).McWhinney, S.R., et al., J. Clin. Endocrinol. Metab. 88(10):4911-4916 (2003).D'Alessio, A., et al., Endocrinology 144(10):4298-4305 (2003).Soares, P., et al., Oncogene 22(29):4578-4580 (2003).Punales, M.K., et al., J. Clin. Endocrinol. Metab. 88(6):2644-2649 (2003).