

Product Name: Ret (phospho Tyr1015) Rabbit Polyclonal Antibody
Catalog #: APRab05364

Summary

Production Name	Ret (phospho Tyr1015) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat,Monkey

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	RET
Alternative Names	RET; CDHF12; CDHR16; PTC; RET51; Proto-oncogene tyrosine-protein kinase receptor Ret; Cadherin family member 12; Proto-oncogene c-Ret
Gene ID	5979.0
SwissProt ID	P07949.The antiserum was produced against synthesized peptide derived from human Ret around the phosphorylation site of Tyr1015. AA range:991-1040

Application

Dilution Ratio	WB 1:500-2000 ELISA 2000-20000
Molecular Weight	124kD

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Background

ret proto-oncogene(RET) Homo sapiens This gene, a member of the cadherin superfamily, encodes one of the receptor tyrosine kinases, which are cell-surface molecules that transduce signals for cell growth and differentiation. This gene plays a crucial role in neural crest development, and it can undergo oncogenic activation in vivo and in vitro by cytogenetic rearrangement. Mutations in this gene are associated with the disorders multiple endocrine neoplasia, type IIA, multiple endocrine neoplasia, type IIB, Hirschsprung disease, and medullary thyroid carcinoma. Two transcript variants encoding different isoforms have been found for this gene. Additional transcript variants have been described but their biological validity has not been confirmed. [provided by RefSeq, Jul 2008],catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,disease:Chromosomal aberrations involving RET are a cause of thyroid papillary carcinoma (PACT) [MIM:188550]. Inversion inv(10)(q11.2;q21) generates the RET/CCDC6 (PTC1) oncogene; inversion inv(10)(q11.2;q11.2) generates the RET/NCOA4 (PTC3) oncogene; translocation t(10;14)(q11;q32) with GOLGA5 generates the RET/GOLGA5 (PTC5) oncogene; translocation t(8;10)(p21.3;q11.2) with PCM1 generates the PCM1/RET fusion; translocation t(6;10)(p21.3;q11.2) with RFP generates the Delta RFP/RET oncogene; translocation t(1;10)(p13;q11) with TRIM33 generates the TRIM33/RET (PTC7) oncogene; translocation t(7;10)(q32;q11) with TIF1 generates the TIF1/RET (PTC6) oncogene. The PTC5 oncogene has been found in 2 cases of PACT in children exposed to radioactive fallout after Chernobyl.,disease:Defects in RET are a cause of congenital central hypoventilation syndrome (CCHS) [MIM:209880]; also known as congenital failure of autonomic control or Ondine curse. CCHS is a rare disorder characterized by abnormal control of respiration in the absence of neuromuscular or lung disease, or an identifiable brain stem lesion. A deficiency in autonomic control of respiration results in inadequate or negligible ventilatory and arousal responses to hypercapnia and hypoxemia.,disease:Defects in RET are a cause of Hirschsprung disease (HSCR) [MIM:142623]. HSCR is a genetic disorder of neural crest development characterized by the absence of intramural ganglion cells in the hindgut, often resulting in intestinal obstruction. Occasionally, MEN2A or FMTC occur in association with HSCR.,disease:Defects in RET are a cause of pheochromocytoma [MIM:171300]. The pheochromocytomas are catecholamine-producing, chromaffin tumors that arise in the adrenal medulla in 90% of cases. In the remaining 10% of cases, they develop in extra-adrenal sympathetic ganglia and may be referred to as "paraganglioma." Pheochromocytoma usually presents with hypertension. Approximately 10% of pheochromocytoma is hereditary. The genetic basis for most cases of non-syndromic familial pheochromocytoma is unknown.,disease:Defects in RET are a cause of renal adysplasia [MIM:191830]; also known as renal agenesis or renal aplasia. Renal agenesis refers to the absence of one (unilateral) or both (bilateral) kidneys at birth. Bilateral renal agenesis belongs to a group of perinatally lethal renal diseases, including severe bilateral renal dysplasia, unilateral renal agenesis with contralateral dysplasia and severe obstructive uropathy.,disease:Defects in RET are the cause of medullary thyroid carcinoma (MTC) [MIM:155240]. MTC is a rare tumor derived from the C cells of the thyroid. Three hereditary forms are known, that are transmitted in an autosomal dominant fashion: (a) multiple neoplasia type 2A (MEN2A), (b) multiple neoplasia type IIB (MEN2B) and (c) familial MTC (FMTC), which occurs in 25-30% of MTC cases and where MTC is the only clinical manifestation.,disease:Defects in RET are the cause of multiple neoplasia type 2A (MEN2A) [MIM:171400]; also

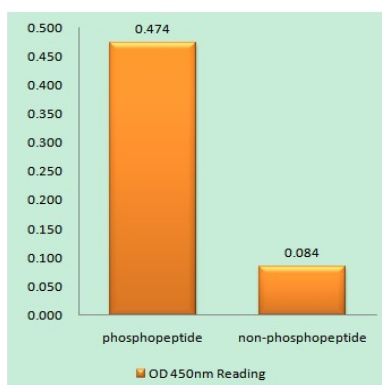
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called multiple neoplasia type 2 (MEN2). MEN2A, the most frequent form of MTC, is an inherited cancer syndrome characterized by MTC, pheochromocytoma and/or hyperparathyroidism.,disease:Defects in RET are the cause of multiple neoplasia type 2B (MEN2B) [MIM:162300]. MEN2B is an uncommon inherited cancer syndrome characterized by predisposition to MTC and pheochromocytoma which is associated with marfanoid habitus, mucosal neuromas, skeletal and ophtalmic abnormalities, and ganglioneuromas of the intestine tract. Then the disease progresses rapidly with the development of metastatic MTC and a pheochromocytome in 50% of cases.,disease:Defects in RET may be a cause of colorectal cancer (CRC) [MIM:114500],,function:Probable receptor with tyrosine-protein kinase activity; important for development.,polymorphism:The Cys-982 polymorphism may be associated with an increased risk for developing Hirschsprung disease.,PTM:Autophosphorylated on C-terminal tyrosine residues upon ligand stimulation.,PTM:Phosphorylated.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family.,similarity:Contains 1 cadherin domain.,similarity:Contains 1 protein kinase domain.,subunit:Phosphorylated form interacts with the PBT domain of DOK2, DOK4 and DOK5.,

Research Area

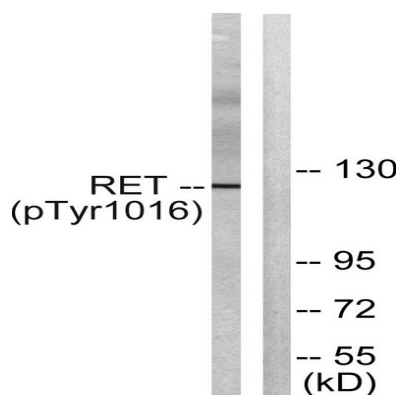
Endocytosis;Pathways in cancer;Thyroid cancer;

Image Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using Ret (Phospho-Tyr1015) Antibody

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Western blot analysis of lysates from COS7 cells treated with EGF 200ng/ml 30', using Ret (Phospho-Tyr1015) Antibody.
The lane on the right is blocked with the phospho peptide.

Note

For research use only.