G-Biosciences Image not found or type unknown

Immunotag™ Ret Monoclonal Antibody

Antibody Specification

Catalog No.	ITM0556
Product Description	Immunotag™ Ret Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	RET
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Purified recombinant fragment of Ret (aa896-1063) expressed in E. Coli.
Specificity	Ret Monoclonal Antibody detects endogenous levels of Ret protein.
Purification	Affinity purification
Form	Ascitic fluid containing 0.03% sodium azide.
Gene Name	RET
Accession No.	P07949 P35546
Alternate Names	RET; CDHF12; CDHR16; PTC; RET51; Proto-oncogene tyrosine-protein kinase receptor Ret; Cadherin family member 12; Proto-oncogene c-Ret

Antibody Specification

Description	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],
Cell Pathway/ Category	Endocytosis,Pathways in cancer,Thyroid cancer,
Protein Expression	Blood,Brain,Fibroblast,Leukocyte,Neural crest,Peripheral blood leukocyte,Thyroid papillary
Subcellular Localization	cytoplasm,early endosome,plasma membrane,integral component of plasma membrane,endosome membrane,membrane,integral component of membrane,axon,dendrite,neuronal cell body,intracellular membrane-bounded organelle,receptor complex,

Antibody Specification

Protein Function	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 called multiple neoplasia type 2 (MEN2). MEN2A, the most frequent form of MTC, is an inherited cancer syndrome characterized by MTC, phaeochromocytoma 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 phaeochromocytoma 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.,

Antibody Specification

Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.