

**Ret Antibody**  
Rabbit mAb  
Catalog # AP90727

## Specification

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### Ret Antibody - Product Information

Application	WB, IHC, FC, ICC, IP
Primary Accession	<a href="#">P07949</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
C-ret; EC 2.7.10.1; Proto-oncogene ret precursor; kinase Ret;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	124319 Da

### Ret Antibody - Additional Information

Purification	<b>Affinity-chromatography</b>
Immunogen	<b>A synthesized peptide derived from human Ret</b>
Description	<b>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.</b>
Storage Condition and Buffer	<b>Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.</b>

### Ret Antibody - Protein Information

**Name** RET {ECO:0000303|PubMed:2660074, ECO:0000312|HGNC:HGNC:9967}

#### Function

Receptor tyrosine-protein kinase involved in numerous cellular mechanisms including cell proliferation, neuronal navigation, cell migration, and cell differentiation in response to glia cell line- derived growth family factors (GDNF, NRTN, ARTN, PSPN and GDF15) (PubMed:<a href="http://www.uniprot.org/citations/20064382" target="\_blank">20064382</a>, PubMed:<a href="http://www.uniprot.org/citations/20616503" target="\_blank">20616503</a>, PubMed:<a href="http://www.uniprot.org/citations/20702524" target="\_blank">20702524</a>, PubMed:<a href="http://www.uniprot.org/citations/21357690" target="\_blank">21357690</a>, PubMed:<a

<http://www.uniprot.org/citations/21454698> target="\_blank">21454698</a>, PubMed:<a href="http://www.uniprot.org/citations/24560924" target="\_blank">24560924</a>, PubMed:<a href="http://www.uniprot.org/citations/28846097" target="\_blank">28846097</a>, PubMed:<a href="http://www.uniprot.org/citations/28846099" target="\_blank">28846099</a>, PubMed:<a href="http://www.uniprot.org/citations/28953886" target="\_blank">28953886</a>, PubMed:<a href="http://www.uniprot.org/citations/31118272" target="\_blank">31118272</a>). In contrast to most receptor tyrosine kinases, RET requires not only its cognate ligands but also coreceptors, for activation (PubMed:<a href="http://www.uniprot.org/citations/21994944" target="\_blank">21994944</a>, PubMed:<a href="http://www.uniprot.org/citations/23333276" target="\_blank">23333276</a>, PubMed:<a href="http://www.uniprot.org/citations/28846097" target="\_blank">28846097</a>, PubMed:<a href="http://www.uniprot.org/citations/28846099" target="\_blank">28846099</a>, PubMed:<a href="http://www.uniprot.org/citations/28953886" target="\_blank">28953886</a>). GDNF ligands (GDNF, NRTN, ARTN, PSPN and GDF15) first bind their corresponding GDNFR coreceptors (GFRA1, GFRA2, GFRA3, GFRA4 and GFRAL, respectively), triggering RET autophosphorylation and activation, leading to activation of downstream signaling pathways, including the MAPK- and AKT-signaling pathways (PubMed:<a href="http://www.uniprot.org/citations/21994944" target="\_blank">21994944</a>, PubMed:<a href="http://www.uniprot.org/citations/23333276" target="\_blank">23333276</a>, PubMed:<a href="http://www.uniprot.org/citations/24560924" target="\_blank">24560924</a>, PubMed:<a href="http://www.uniprot.org/citations/25242331" target="\_blank">25242331</a>, PubMed:<a href="http://www.uniprot.org/citations/28846097" target="\_blank">28846097</a>, PubMed:<a href="http://www.uniprot.org/citations/28846099" target="\_blank">28846099</a>, PubMed:<a href="http://www.uniprot.org/citations/28953886" target="\_blank">28953886</a>). Acts as a dependence receptor via the GDNF-GFRA1 signaling: 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 (PubMed:<a href="http://www.uniprot.org/citations/20616503" target="\_blank">20616503</a>, PubMed:<a href="http://www.uniprot.org/citations/21994944" target="\_blank">21994944</a>). Required for the molecular mechanisms orchestration during intestine organogenesis via the ARTN-GFRA3 signaling: 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 (By similarity). Mediates, through interaction with GDF15-receptor GFRAL, GDF15-induced cell-signaling in the brainstem which triggers an aversive response, characterized by nausea, vomiting, and/or loss of appetite in response to various stresses (PubMed:<a href="http://www.uniprot.org/citations/28846097" target="\_blank">28846097</a>, PubMed:<a href="http://www.uniprot.org/citations/28846099" target="\_blank">28846099</a>, PubMed:<a href="http://www.uniprot.org/citations/28953886" target="\_blank">28953886</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/20702524" target="\_blank">20702524</a>, PubMed:<a href="http://www.uniprot.org/citations/21357690" target="\_blank">21357690</a>). Also active in the absence of ligand, triggering apoptosis through a mechanism that requires receptor intracellular caspase cleavage (PubMed:<a href="http://www.uniprot.org/citations/21357690" target="\_blank">21357690</a>). Triggers the differentiation of rapidly adapting (RA) mechanoreceptors (PubMed:<a href="http://www.uniprot.org/citations/20064382" target="\_blank">20064382</a>). Involved in the development of the neural crest (By similarity). Regulates nociceptor survival and size (By similarity). Phosphorylates PTK2/FAK1 (PubMed:<a href="http://www.uniprot.org/citations/21454698" target="\_blank">21454698</a>).

### Cellular Location

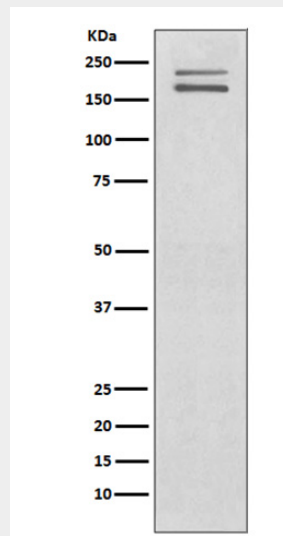
Cell membrane; Single-pass type I membrane protein. Endosome membrane; Single-pass type I membrane protein Note=Predominantly located on the plasma membrane (PubMed:23333276, PubMed:9575150). In the presence of SORL1 and GFRA1, directed to endosomes (PubMed:23333276).

## Ret Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Ret Antibody - Images



Western blot analysis of Ret expression in SH-SY5Y cell lysate.