

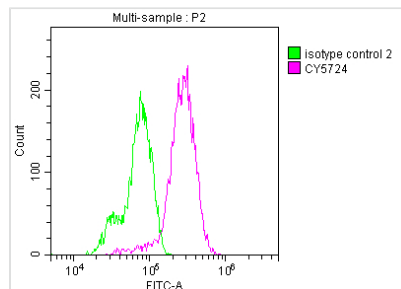


# RET Recombinant Monoclonal Antibody

<b>Product Code</b>	CSB-RA288083A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P07949
<b>Immunogen</b>	A synthesized peptide derived from human Ret
<b>Species Reactivity</b>	Human
<b>Tested Applications</b>	ELISA, FC; Recommended dilution: FC:1:20-1:200
<b>Relevance</b>	<p>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.</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Cancer; Signal transduction
<b>Gene Names</b>	RET
<b>Clone No.</b>	8D12



## Image



Overlay histogram showing Hela cells stained with CSB-RA288083A0HU (red line) at 1:50. The cells were fixed in 4% formaldehyde (15min) and permeated by 0.2% TritonX-100 for 10min. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1 $\mu$ g/1\*10<sup>6</sup>cells) for 45min at 4?. The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4?. Control antibody (green line) was Rabbit IgG (1 $\mu$ g/1\*10<sup>6</sup> cells) used under the same conditions. Acquisition of >10,000 events was performed.

## Description

The RET recombinant monoclonal antibody preparation is based on protein technology and DNA recombinant technology. Mice are first immunized with a synthesized peptide derived from human RET. After a period of time, spleen cells are extracted under sterile conditions, and total RNA is extracted from the spleen cells. The cDNA synthesized by RNA reverse transcription is used as a template for PCR amplification of the RET antibody gene. The resulting gene is inserted into a vector, which is then transfected into host cells for cultivation. The RET recombinant monoclonal antibody is then purified from the cell culture supernatant by affinity chromatography. It has been thoroughly validated and can be used for the detection of human RET protein in ELISA and FC experiments.

The proto-oncogene tyrosine-protein kinase receptor RET is a receptor tyrosine kinase that plays a critical role in the development and function of the nervous system, kidney, and several other organs. RET is activated by its ligands such as GDNF, NRTN, ARTN, and PSPN, and undergoes dimerization and autophosphorylation on several tyrosine residues within its intracellular domain, which leads to the activation of downstream signaling pathways, including the RAS-RAF-MEK-ERK and PI3K-AKT pathways that play critical roles in cell proliferation, survival, differentiation, and migration. In addition to its role in development, RET mutations have been implicated in various human cancers, including medullary thyroid carcinoma, multiple endocrine neoplasia type 2, and familial pheochromocytoma.