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Ret Proto-Oncogene Protein (RET) (AA 708-1017) (rho-1D4 tag)



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Image

Overview

Quantity:	1 mg
Target:	Ret Proto-Oncogene (RET)
Protein Characteristics:	AA 708-1017
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Ret Proto-Oncogene protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence:

AFKILEDPKW EFPRKNLVLG KTLGEGEFGK VVKATAFHLK GRAGYTTVAV KMLKENASPS
ELRDLLSEFN VLKQVNHPHV IKLYGACSQD GPLLLIVEYA KYGSLRGFLR ESRKVGPGYL
GSGGSRNSSS LDHPDERALT MGDLISFAWQ ISQGMQYLAE MKLVHRDLAA RNILVAEGRK
MKISDFGLSR DVYEEDSYVK RSQGRIPVKW MAIESLFDHI YTTQSDVWSF GVLLWEIVTL
GGNPYPGIPP ERLFNLLKTG HRMERPDNCS EEMYRLMLQC WKQEPDKRPV FADISKDLEK
MMVKRRDYLD

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany from design to production by highly experienced protein experts.
- Human RET Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:

- 1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
- 2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
- 3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 μm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target: Ret Proto-Oncogene (RET)

Target Details

Alternative Name:	RET (RET Products)
Background:	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 cel
	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 cel
	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. {ECO:0000269 PubMed:20064382,
	ECO:0000269 PubMed:20616503, ECO:0000269 PubMed:20702524,
	ECO:0000269 PubMed:21357690, ECO:0000269 PubMed:21454698}.
Molecular Weight:	36.6 kDa Including tag.
UniProt:	P07949
Pathways:	RTK Signaling, Dopaminergic Neurogenesis, Regulation of Cell Size, Tube Formation
Application Details	
Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies
	as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee
	though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be
	insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to
	increase solubility. We will discuss all possible options with you in detail to assure that you
	receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

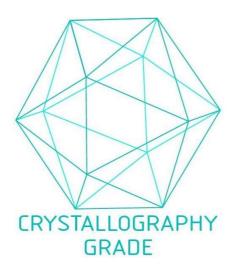


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process