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RNF168 Protein (AA 1-565) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	RNF168
Protein Characteristics:	AA 1-565
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RNF168 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:

MAAPKTSIPS LAECQCGICM EILLEPVTLP CNHTLCNPCF QSTVEKANLC CPFCRRRVSS
WTRYHTRRNS LVNTDLWEII QKHYAKECKL RISGQESKEI IDECQPVRRL SEPGELRREY
EEEISRVEAE RQASKEEENK ASEEYIQRLL AEEEEEEKRQ REKRRSEMEE QLRGDEELAR
SLSTSINSNY ERNTLASPLS SRKSDPVTNK SQKKNTSKQK TFGDIQKYLS PKLKPGTALA
CKAELEEDIC KSKETDRSDT KSPVLQDTEI EKNIPTLSPQ TCLETQEQGS ESSAGIPGPQ
LCVGDTKESL EGKVETVSTS PDDLCIVNDD GPRATVFYSN EAAVNSSSKI ENEEYSVTGV
PQLTGGNRVP TESRVYHLLV EEEISDRENQ ESVFEEVMDP CFSAKRRKIF IESSSDQEET
EVNFTQKLID LEHMLFERHK QEEQDRLLAL QLQKEVDKEQ MVPNRQKGSP DQYQLRTPSP
PDRLLNRQRK NSKDRNSLQQ TNADHSKSPR NTKGDYWEPF KNTWKDSVNG TKMPTSTQDN
CNVSKSAYTV QHRKSQRSIV QMFQR

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you

have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany from design to production by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require posttranslational modifications.
- During lysate production, the cell wall and other cellular components that are not required for
 protein production are removed, leaving only the protein production machinery and the
 mitochondria to drive the reaction. During our lysate completion steps, the additional
 components needed for protein production (amino acids, cofactors, etc.) are added to
 produce something that functions like a cell, but without the constraints of a living system all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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.
- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.

Pathways:

Product Details	
	Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Target Details	
Target:	RNF168
Alternative Name:	Rnf168 (RNF168 Products)
Background:	E3 ubiquitin-protein ligase RNF168 (EC 2.3.2.27) (RING finger protein 168) (RING-type E3
	ubiquitin transferase RNF168),FUNCTION: E3 ubiquitin-protein ligase required for accumulation
	of repair proteins to sites of DNA damage. Acts with UBE2N/UBC13 to amplify the RNF8-
	dependent histone ubiquitination. Recruited to sites of DNA damage at double-strand breaks
	(DSBs) by binding to ubiquitinated histone H2A and H2AX and amplifies the RNF8-dependent
	H2A ubiquitination, promoting the formation of 'Lys-63'-linked ubiquitin conjugates. This leads
	to concentrate ubiquitinated histones H2A and H2AX at DNA lesions to the threshold required
	for recruitment of TP53BP1 and BRCA1. Also recruited at DNA interstrand cross-links (ICLs)
	sites and promotes accumulation of 'Lys-63'-linked ubiquitination of histones H2A and H2AX,
	leading to recruitment of FAAP20 and Fanconi anemia (FA) complex, followed by interstrand
	cross-link repair. H2A ubiquitination also mediates the ATM-dependent transcriptional silencing
	at regions flanking DSBs in cis, a mechanism to avoid collision between transcription and repair
	intermediates. Also involved in class switch recombination in immune system, via its role in
	regulation of DSBs repair. Following DNA damage, promotes the ubiquitination and degradation
	of JMJD2A/KDM4A in collaboration with RNF8, leading to unmask H4K20me2 mark and
	promote the recruitment of TP53BP1 at DNA damage sites. Not able to initiate 'Lys-63'-linked
	ubiquitination in vitro, possibly due to partial occlusion of the UBE2N/UBC13-binding region.
	Catalyzes monoubiquitination of 'Lys-13' and 'Lys-15' of nucleosomal histone H2A (H2AK13Ub
	and H2AK15Ub, respectively). {ECO:0000255 HAMAP-Rule:MF_03066,
	ECO:0000269 PubMed:20080757}.
Molecular Weight:	64.8 kDa
UniProt:	Q80XJ2

Production of Molecular Mediator of Immune Response

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 guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
	During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)