Datasheet for ABIN3137402

Exonuclease 1 Protein (EXO1) (AA 1-837) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	Exonuclease 1 (EXO1)
Protein Characteristics:	AA 1-837
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Exonuclease 1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MGIQGLLQFI QEASEPVNVK KYKGQAVAVD TYCWLHKGAI ACAEKLAKGE PTDRYVGFCM KFVNMLLSYG VKPILIFDGC TLPSKKEVER SRRERRQSNL LKGKQLLREG KVSEARDCFA RSINITHAMA HKVIKAARAL GVDCLVAPYE ADAQLAYLNK AGIVQAVITE DSDLLAFGCK KVILKMDQFG NGLEVDQARL GMCKQLGDVF TEEKFRYMCI LSGCDYLASL RGIGLAKACK VLRLANNPDI VKVIKKIGHY LRMNITVPED YITGFIRANN TFLYQLVFDP IQRKLVPLNA YGDDVNPETL TYAGQYVGDS VALQIALGNR DVNTFEQIDD YSPDTMPAHS RSHSWNEKAG QKPPGTNSIW HKNYCPRLEV NSVSHAPQLK EKPSTLGLKQ VISTKGLNLP RKSCVLKRPR NEALAEDDLL SQYSSVSKKI KENGCGDGTS PNSSKMSKSC PDSGTAHKTD AHTPSKMRNK FATFLQRRNE ESGAVVVPGT RSRFFCSSQD FDNFIPKKES GQPLNETVAT GKATTSLLGA LDCPDTEGHK PVDANGTHNL SSQIPGNAAV SPEDEAQSSE TSKLLGAMSP PSLGTLRSCF SWSGTLREFS RTPSPSASTT LQQFRRKSDP PACLPEASAV VTDRCDSKSE MLGETSQPLH ELGCSSRSQE SMDSSCGLNT SSLSQPSSRD SGSEESDCNN KSLDNQGEQN SKQHLPHFSK

KDGLRRNKVP GLCRSSSMDS FSTTKIKPLV PARVSGLSKK SGSMQTRKHH DVENKPGLQT KISELWKNFG FKKDSEKLPS CKKPLSPVKD NIQLTPETED EIFNKPECVR AQRAIFH

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 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!

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.

Product Details

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. 2. 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:	Exonuclease 1 (EXO1)
Alternative Name:	Exo1 (EXO1 Products)
Background:	Exonuclease 1 (mExo1) (EC 3.1.-.-) (Exonuclease I),FUNCTION: 5'->3' double-stranded DNA exonuclease which may also possess a cryptic 3'->5' double-stranded DNA exonuclease activity. Functions in DNA mismatch repair (MMR) to excise mismatch-containing DNA tracts directed by strand breaks located either 5' or 3' to the mismatch. Also exhibits endonuclease activity against 5'-overhanging flap structures similar to those generated by displacement synthesis when DNA polymerase encounters the 5'-end of a downstream Okazaki fragment. Required for somatic hypermutation (SHM) and class switch recombination (CSR) of immunoglobulin genes. Essential for male and female meiosis. {ECO:0000269|PubMed:12629043, ECO:0000269|PubMed:14716311}.
Molecular Weight:	92.0 kDa
UniProt:	Q9QZ11
Pathways:	DNA Damage Repair, 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

Application Details

	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)