Datasheet for ABIN3117487

NOX5 Protein (AA 1-765) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	NOX5
Protein Characteristics:	AA 1-765
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NOX5 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MNTSGDPAQT GPEGCRGTMS AEEDARWLRW VTQQFKTIAG EDGEISLQEF KAALHVKESF FAERFFALFD SDRSGTITLQ ELQEALTLLI HGSPMDKLKF LFQVYDIDVC ARQGASAGTE WGAGAGPHWA SSPLGTGSGS IDPDELRTVL QSCLRESAIS LPDEKLDQLT LALFESADAD GNGAITFEEL RDELQRFPGV MENLTISAAH WLTAPAPRPR PRRPRQLTRA YWHNHRSQLF CLATYAGLHV LLFGLAASAH RDLGASVMVA KGCGQCLNFD CSFIAVLMLR RCLTWLRATW LAQVLPLDQN IQFHQLMGYV VVGLSLVHTV AHTVNFVLQA QAEASPFQFW ELLLTTRPGI GWVHGSASPT GVALLLLLLL MFICSSSCIR RSGHFEVFYW THLSYLLVWL LLIFHGPNFW KWLLVPGILF FLEKAIGLAV SRMAAVCIME VNLLPSKVTH LLIKRPPFFH YRPGDYLYLN IPTIARYEWH PFTISSAPEQ KDTIWLHIRS QGQWTNRLYE SFKASDPLGR GSKRLSRSVT MRKSQRSSKG SEILLEKHKF CNIKCYIDGP YGTPTRRIFA SEHAVLIGAG IGITPFASIL QSIMYRHQKR KHTCPSCQHS WIEGVQDNMK LHKVDFIWIN RDQRSFEWFV SLLTKLEMDQ AEEAQYGRFL ELHMYMTSAL GKNDMKAIGL QMALDLLANK EKKDSITGLQ TRTQPGRPDW

	SKVFQKVAAE KKGKVQVFFC GSPALAKVLK GHCEKFGFRF FQENF **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.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System

Product Details

	(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:	NOX5
Alternative Name:	NOX5 (NOX5 Products)
Background:	NADPH oxidase 5 (EC 1.6.3.-),FUNCTION: Calcium-dependent NADPH oxidase that catalyzes the generation of superoxide from molecular oxygen utilizing NADPH as an electron donor (PubMed:12686516). May play a role in cell growth and apoptosis (PubMed:12686516). {ECO:0000269|PubMed:12686516}., FUNCTION: [Isoform v2]: Calcium-dependent NADPH oxidase that catalyzes the generation of superoxide from molecular oxygen utilizing NADPH as an electron donor (PubMed:11483596, PubMed:14982937, PubMed:17275676, PubMed:21642394, PubMed:24505490, PubMed:36653838, PubMed:17587483, PubMed:22427510, PubMed:22387196). Also functions as a calcium-dependent proton channel and may regulate redox-dependent processes in lymphocytes and spermatozoa (PubMed:11483596). Involved in endothelial generation of reactive oxygen species (ROS), proliferation and angiogenesis and contribute to endothelial response to thrombin (PubMed:17275676). {ECO:0000269|PubMed:11483596, ECO:0000269|PubMed:14982937, ECO:0000269|PubMed:17275676, ECO:0000269|PubMed:17587483, ECO:0000269|PubMed:21642394, ECO:0000269|PubMed:22387196, ECO:0000269|PubMed:22427510, ECO:0000269|PubMed:24505490, ECO:0000269|PubMed:36653838}., FUNCTION: [Isoform v1]: Calcium-dependent NADPH oxidase that catalyzes the generation of superoxide from molecular oxygen utilizing NADPH as an electron donor. {ECO:0000269|PubMed:21319793, ECO:0000269|PubMed:22427510}., FUNCTION: [Isoform v5]: Calcium-dependent NADPH oxidase that catalyzes the generation of superoxide from molecular oxygen utilizing NADPH as an electron donor (PubMed:17275676, PubMed:36653838). According to PubMed:22427510, lacks enzyme activity (PubMed:22427510). Involved in endothelial generation of reactive oxygen species (ROS),

Target Details

	proliferation and angiogenesis and contribute to endothelial response to thrombin (PubMed:17275676). {ECO:0000269|PubMed:17275676, ECO:0000269|PubMed:22427510, ECO:0000269|PubMed:36653838}., FUNCTION: [Isoform v4]: Lacks calcium-dependent NADPH oxidase activity. {ECO:0000269|PubMed:22427510}., FUNCTION: [Isoform v3]: Lacks calcium-dependent NADPH oxidase activity. {ECO:0000269|PubMed:22427510}.
Molecular Weight:	86.4 kDa
UniProt:	Q96PH1
Pathways:	Proton Transport

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.

Handling

Expiry Date:	Unlimited (if stored properly)

