Datasheet for ABIN7554739

NADPH Oxidase 4 Protein (NOX4) (AA 1-578) (His tag)

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Overview

Quantity:	1 mg
Target:	NADPH Oxidase 4 (NOX4)
Protein Characteristics:	AA 1-578
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NADPH Oxidase 4 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant NOX4 Protein expressed in mammalian cells.
Sequence:	MAVSWRSWLA NEGVKHLCLF IWLSMNVLLF WKTFLLYNQG PEYHYLHQML GLGLCLSRAS ASVLNLNCSL ILLPMCRTLL AYLRGSQKVP SRRTRRLLDK SRTFHITCGV TICIFSGVHV AAHLVNALNF SVNYSEDFVE LNAARYRDED PRKLLFTTVP GLTGVCMVVV LFLMITASTY AIRVSNYDIF WYTHNLFFVF YMLLTLHVSG GLLKYQTNLD THPPGCISLN RTSSQNISLP EYFSEHFHEP FPEGFSKPAE FTQHKFVKIC MEEPRFQANF PQTWLWISGP LCLYCAERLY RYIRSNKPVT IISVMSHPSD VMEIRMVKEN FKARPGQYIT LHCPSVSALE NHPFTLTMCP TETKATFGVH LKIVGDWTER FRDLLLPPSS QDSEILPFIQ SRNYPKLYID GPFGSPFEES LNYEVSLCVA GGIGVTPFAS ILNTLLDDWK PYKLRRLYFI WVCRDIQSFR WFADLLCMLH NKFWQENRPD YVNIQLYLSQ TDGIQKIIGE KYHALNSRLF IGRPRWKLLF DEIAKYNRGK TVGVFCCGPN SLSKTLHKLS NQNNSYGTRF EYNKESFS **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please**

Product Details

	contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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 try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	NADPH Oxidase 4 (NOX4)
Alternative Name:	NOX4 (NOX4 Products)
Background:	NADPH oxidase 4 (EC 1.6.3.1) (Kidney oxidase-1) (KOX-1) (Kidney superoxide-producing NADPH oxidase) (Renal NAD(P)H-oxidase),FUNCTION: NADPH oxidase that catalyzes predominantly the reduction of oxygen to H2O2 (PubMed:15356101, PubMed:14966267, PubMed:15927447, PubMed:25062272, PubMed:21343298). Can also catalyze to a smaller extent, the reduction of oxygen to superoxide (PubMed:10869423, PubMed:11032835, PubMed:15155719, PubMed:15572675, PubMed:16230378, PubMed:16179589, PubMed:16324151, PubMed:15927447, PubMed:16019190, PubMed:25062272). May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity (PubMed:16019190). May regulate insulin signaling cascade (PubMed:14966267). May play a role in apoptosis, bone resorption and lipolysaccharide-mediated activation of NFKB

Target Details

	(PubMed:15572675, PubMed:15356101). May produce superoxide in the nucleus and play a role in regulating gene expression upon cell stimulation (PubMed:16324151). {ECO:0000269|PubMed:10869423, ECO:0000269|PubMed:11032835, ECO:0000269|PubMed:14966267, ECO:0000269|PubMed:15155719, ECO:0000269|PubMed:15356101, ECO:0000269|PubMed:15572675, ECO:0000269|PubMed:15927447, ECO:0000269|PubMed:16019190, ECO:0000269|PubMed:16179589, ECO:0000269|PubMed:16230378, ECO:0000269|PubMed:16324151, ECO:0000269|PubMed:21343298, ECO:0000269|PubMed:25062272}., FUNCTION: [Isoform 4]: NADPH oxidase that catalyzes the generation of superoxide from molecular oxygen utilizing NADPH as an electron donor (PubMed:15721269, PubMed:23393389). Involved in redox signaling in vascular cells (PubMed:23393389). Modulates the nuclear activation of ERK1/2 and the ELK1 transcription factor, and is capable of inducing nuclear DNA damage (PubMed:23393389). {ECO:0000269|PubMed:15721269, ECO:0000269|PubMed:23393389}., FUNCTION: [Isoform 3]: Lacks superoxide-generating NADPH oxidase activity. {ECO:0000269|PubMed:15721269}.
Molecular Weight:	66.9 kDa
UniProt:	Q9NPH5
Pathways:	Carbohydrate Homeostasis, Smooth Muscle Cell Migration

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition 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:	12 months