Datasheet for ABIN7561506

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

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## Overview

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

## Product Details

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| Purpose: | Custom-made recombinant Nox4 Protein expressed in mammalian cells. |
| Sequence: | MAVSWRSWLA NEGVKHLCLL IWLSLNVLLF WKTFLLYNQG PEYYYIHQML GLGLCLSRAS ASVLNLNCSL ILLPMCRTVL AYLRGSQKVP SRRTRRLLDK SKTLHITCGV TICIFSGVHV AAHLVNALNF SVNYSEDFLE LNAARYQNED PRKLLFTTIP GLTGVCMVVV LFLMVTASTY AIRVSNYDIF WYTHNLFFVF YMLLLLHVSG GLLKYQTNVD THPPGCISLN QTSSQNMSIP DYVSEHFHGS LPRGFSKLED RYQKTLVKIC LEEPKFQAHF PQTWIWISGP LCLYCAERLY RCIRSNKPVT IISVINHPSD VMELRMIKEN FKARPGQYII LHCPSVSALE NHPFTLTMCP TETKATFGVH FKVVGDWTER FRDLLLPPSS QDSEILPFIH SRNYPKLYID GPFGSPFEES LNYEVSLCVA GGIGVTPFAS ILNTLLDDWK PYKLRRLYFI WVCRDIQSFQ WFADLLCVLH NKFWQENRPD FVNIQLYLSQ TDGIQKIIGE KYHTLNSRLF IGRPRWKLLF DEIAKCNRGK TVGVFCCGPS SISKTLHSLS NRNNSYGTKF 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

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| | **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:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalian cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>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

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| 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) (Superoxide-generating NADPH oxidase 4),FUNCTION: NADPH oxidase that catalyzes predominantly the reduction of oxygen to H2O2 (By similarity). Can also catalyze to a smaller extent, the reduction of oxygen to superoxide (PubMed:10869423, PubMed:11098048, PubMed:15638999). May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity (By similarity). May regulate insulin signaling cascade (By similarity). May play a role in apoptosis, bone resorption and lipolysaccharide-mediated activation of NFKB (By similarity). May produce superoxide in the nucleus and play a role in regulating gene expression upon cell stimulation (By similarity). {ECO:0000250\|UniProtKB:Q9NPH5, ECO:0000269\|PubMed:10869423, |

## Target Details

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| | ECO:0000269\|PubMed:11098048, ECO:0000269\|PubMed:15638999}. |
| Molecular Weight: | 66.5 kDa |
| UniProt: | Q9JHI8 |
| Pathways: | Carbohydrate Homeostasis, Smooth Muscle Cell Migration |

## Application Details

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| 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

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| 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 |