**Proteins** 



# **Product** Data Sheet

# NOX4 Protein, Pongo abelii (Cell-Free, His)

Cat. No.: HY-P702388

Synonyms: NADPH oxidase 4

Species: Others

Source: E. coli Cell-free Accession: Q5R5C5 (M1-S578)

Gene ID: 100171782 Molecular Weight: 69.7 kDa

### **PROPERTIES**

AA 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 FPEGFSKPEE FTQNTFVKIC MEEPRFQANF PQTWLWISGP LCLYCAERLY RYIRSNKPVT IISVISHPSD VMEIRMVKEN FKARPGQYIT LHCPSVSALE NHPFTLTMCP TETKATFGVH LKIVGDWTER FRDLLLPPSS QDSEILPFIQ SRNYPKLYID GPFGSPFEES LNYEVSLCVA GGIGVTPFAS ILNTLLDDWK PYKLRRLYFI WVCRDIQSFR WFADLLCMLH NKFWQENRPD YVNIQLYLSQ TDGIQKIIGE KYHALNSRLF IGRPRWKLLF DEIAKYNRGK TVGVFCCGPN SLSKTLHKLS
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

Page 1 of 2

### **DESCRIPTION**

#### Background

NOX4 protein, a constitutive NADPH oxidase, functions as an intracellular superoxide generator upon complex formation with CYBA/p22phox. This enzyme plays a pivotal role in regulating signaling cascades, potentially through the inhibition of phosphatases. Additionally, NOX4 may act as an oxygen sensor, modulating the KCNK3/TASK-1 potassium channel and HIF1A activity. It is implicated in the regulation of insulin signaling cascades and may contribute to apoptosis, bone resorption, and lipolysaccharide-mediated activation of NFKB. Activated by insulin and inhibited by diphenylene iodonium, NOX4 is also responsive to plumbagin and can be activated by phorbol 12-myristate 13-acetate (PMA). These diverse regulatory functions highlight the versatile role of NOX4 in cellular processes and signaling pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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Page 2 of 2 www.MedChemExpress.com