

## NOX4 Protein, Human, Recombinant (Cell-Free, His)

## General Information

Synonyms:	Kidney oxidase-1 (KOX-1);Kidney superoxide-producing NADPH oxidase;RENOX;Renal NAD (P)H-oxidase;NADPH oxidase 4;NOX4
Protein Construction:	1-578
Species:	Human
Expression Host:	E. coli
Accession:	Q9NPH5
Molecular Weight:	69.8?kDa (predicted)
AA Sequence:	MAVSWRSWLANEGVKHLCLFIWLSMNVLLFWKTFLLYNQGPEYHYLHQMLGLGLCLSRASASVLNLCNLIL LPMCRTLLAYLRGSQKVPSSRRTRRLDKSRTFHITCGVTICIFSGVHVA AHLVNALNFSVNYSEDFVELNAARY RDEDPRKLLFTTVPGLTGVCMVVVLFLMITASTYAIRVSNYDIFWYTHNLFFVFYMLLTLHVSGGLLKYQTNLDT HPPGCISLNRSSQNISLPEYFSEHFHEPPEGFASKPAEFTQHKFKICMEEPRFQANFPQTWLWISGPLCLYC AERLYRYIRS NKPVTIISVM SHPSDVMEIRMVKENFKARPGQYITLHCPVSVALENHPFTLTMCPTETKATFGVH LKIVGDWTERFRDLLLPPSSQDSEILPFIQSRNYPKLYIDGPF GSPFEESLNYEVS LCVAGGIGVTPFASILNTLLD DWKPYKLRRLYFIWVCRDIQSFRWFADLLCMLHNKFWQENRPDYVNIQLYLSQTDGIQKIIGEKYHALNSRLF IGRPRWKLDFEIAKYNRGKTVGVFCCGPNLSKTLHKLSNQNNNSYGTRFEYNKESFS

## QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from Tris/PBS-based buffer, 6% Trehalose, pH 8.0

## Preparation and Storage

## Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

## Stability &amp; Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

## Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

**Protein Background**

Constitutive NADPH oxidase which generates superoxide intracellularly upon formation of a complex with CYBA/p22phox. Regulates signaling cascades probably through phosphatases inhibition. May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity. May regulate insulin signaling cascade. May play a role in apoptosis, bone resorption and lipopolysaccharide-mediated activation of NFkB. May produce superoxide in the nucleus and play a role in regulating gene expression upon cell stimulation. Isoform 3 is not functional. Isoform 5 and isoform 6 display reduced activity.; Involved in redox signaling in vascular cells. Constitutively and NADPH-dependently generates reactive oxygen species (ROS). Modulates the nuclear activation of ERK1/2 and the ELK1 transcription factor, and is capable of inducing nuclear DNA damage. Displays an increased activity relative to isoform 1.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481