

NOX4 Protein, Human, Recombinant (E. coli, His)

General Information

Synonyms:	Kidney oxidase-1 (KOX-1);NADPH oxidase 4;Kidney superoxide-producing NADPH oxidase; Renal NAD(P)H-oxidase;NOX4;RENOX
Protein Construction:	210-424 aa
Species:	Human
Expression Host:	E. coli
Accession:	Q9NPH5
Molecular Weight:	28.8 kDa (predicted)
AA Sequence:	GGLLKYQTNLDTHPPGCISLNRSSQNISLPEYFSEHFHEPFPEGFSKPAEFTQHKFVKICMEEPRFQANFPQT WLWISGPLCLYCAERLYRYIRSNKPVTIISVM SHPSDVM EIRMVKENFKARPGQYITLHCPSVSALENHPFTLT MCPTETKATFGVHLKIVGDWTERFRDLLLPSSQDSEILPFIQSRNYPKLYIDGPFPGSPFEESLNYE

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:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & 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 NFκB. May

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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

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