# Enzymes

## Nox4 - **Protein-NADPH oxidase 4**

### Product specification

**Acronym:** Nox4
**Class:** Enzyme
**Origin:** Mouse
**Molecular weight:** 67 kDa
**Application:**

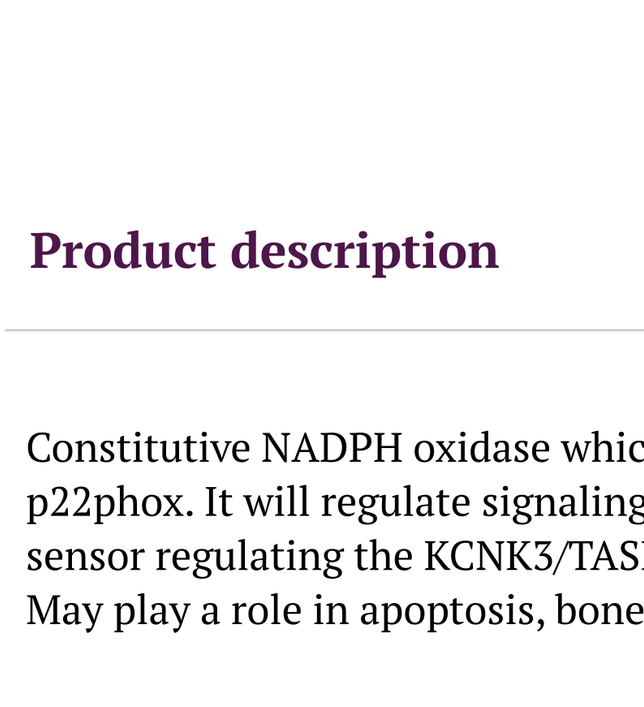
**Purity:** >40%
**Activity:**
**Length:**
**TMD:**
**Biological function:**

### Product description

Constitutive NADPH oxidase which generates superoxide intracellularly upon formation of a complex with CYBA/p22phox. It will regulate signaling cascades probably through phosphatases inhibition. May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity. It may regulate insulin signaling cascade. May play a role in apoptosis, bone resorption and lipolysaccharide-mediated activation of NFKB.

**Protein Source:** NADPH oxidase 4 isoform a [Homo sapiens]- NCBI Reference Sequence: NP_058627.2

*Fig.1: AA sequence of NADPH oxidase 4 protein.*



**Affinity Tag:** Strep tag fused to the C-terminal end of the protein.

**Production conditions:**NADPH oxidase 4 is expressed in a cell-free expression system in the presence of lipid vesicles.
100 µg can be produced and qualified in about 1 week.

## Quality analysis

**Purity:** Typically >40% as determined by SDS-Page and Coomassie Blue staining.

**Purification procedure:** As standard, NADPH oxidase 4 proteoliposomes are purified on a sucrose gradient. Further purification steps can be added if required.

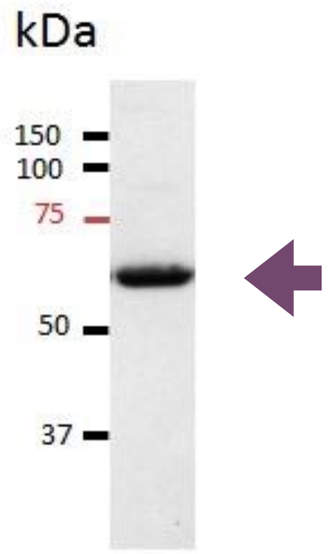



*Fig.2: Western Blot identification of NADPH oxidase 4 in proteoliposomes after gradient purification*

After purification on a sucrose gradient, the protein appears at the right size on polyacrylamide gel (band at 67 KDa).

## Formulation

**Buffer:** Available in Tris 50mM, pH 7.5. Other buffers or customized formulation can be provided upon request.

**Customized Hydrophobic matrix:** Customized formulation with specific lipids like PEGylated or biotinylated lipids can be used upon request, as well as targeting molecules.

**Storage/Stability:** Store at +4°C for up to one week or several months at -80°C. Aliquot for storage. Do not freeze-thaw after aliquoting.

**Use restrictions:** For life science research use only.

**Available sizes:** 10µg, 20µg ,100 µg , 200 µg, 500 µg,bulk

Need a specific amount, a quote or any additional information?
Contact-us

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