

Product datasheet

NADPH oxidase 4 peptide ab155071

3 References

Description

Product name	NADPH oxidase 4 peptide
Accession	<u>Q9NPH5</u>
Animal free	No
Nature	Synthetic

Specifications

Our **Abpromise guarantee** covers the use of **ab155071** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Blocking
Form	Liquid
Additional notes	<ul style="list-style-type: none"> - First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions. - If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer. - Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent. - Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised. - Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles. Information available upon request.
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General Info

Function	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
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and HIF1A activity. May regulate insulin signaling cascade. May play a role in apoptosis, bone resorption and lipopolysaccharide-mediated activation of NFκB. May produce superoxide in the nucleus and play a role in regulating gene expression upon cell stimulation. Isoform 3 is not functional. Isoform 4 displays an increased activity. Isoform 5 and isoform 6 display reduced activity.

Tissue specificity

Expressed by distal tubular cells in kidney cortex and in endothelial cells (at protein level). Widely expressed. Strongly expressed in kidney and to a lower extent in heart, adipocytes, hepatoma, endothelial cells, skeletal muscle, brain, several brain tumor cell lines and airway epithelial cells.

Sequence similarities

Contains 1 FAD-binding FR-type domain.
Contains 1 ferric oxidoreductase domain.

Developmental stage

Expressed in fetal kidney and fetal liver.

Post-translational modifications

Isoform 3 and isoform 4 are N-glycosylated. Isoform 4 glycosylation is required for its proper function.

Cellular localization

Endoplasmic reticulum membrane. Cell membrane. Cell junction > focal adhesion. Nucleus. May localize to plasma membrane and focal adhesions. According to PubMed:15927447, may also localize to the nucleus.

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