

## Certificate of Analysis

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**Product Name:** NoxA1ds  
**CAS Number:** 1435893-78-9

**Catalog No.:** 5848      **Batch No.:** 2

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>50</sub>H<sub>88</sub>N<sub>14</sub>O<sub>15</sub>  
**Batch Molecular Weight:** 1125.33  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 86%  
**Counter Ion:** Acetate  
**Solubility:** Soluble to 2 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:** Glu-Pro-Val-Asp-Ala-Leu-Gly-Lys-Ala-Lys-Val-NH<sub>2</sub>

### 2. ANALYTICAL DATA

**HPLC:** Shows 97.2% purity  
**Mass Spectrum:** Consistent with structure

### 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	2.00	1.93	Lys	2.00	1.96
Arg			Met		
Asx	1.00	1.01	Phe		
Cys			Pro	1.00	1.02
Glx	1.00	1.00	Ser		
Gly	1.00	1.02	Thr		
His			Trp		
Ile			Tyr		
Leu	1.00	0.99	Val	2.00	2.08

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Product Name:** NoxA1ds  
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**Description:**

Potent and selective NADPH oxidase 1 (NOX1) inhibitor (IC<sub>50</sub> = 20 nM). Exhibits selectivity for NOX1 over NOX2, NOX4, NOX5 and xanthine oxidase. Inhibits NOX1-derived O<sub>2</sub><sup>-</sup> production in HT-29 human colon cancer cells. Attenuates VEGF-induced human pulmonary artery endothelial cell migration under hypoxic conditions in vitro. Cell permeable.

**Physical and Chemical Properties:**

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Physical Appearance: White lyophilised solid

**Peptide Sequence:**

**Glu-Pro-Val-Asp-Ala-Leu-Gly-Lys-Ala-Lys-Val-NH<sub>2</sub>**

**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble to 2 mg/ml in water  
This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Net Peptide Content:** 86% (Remaining weight made up of counterions and residual water).

**Counter Ion:** Acetate

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

**References:**

**Ranayhossaini et al** (2013) Selective recapitulation of conserved and nonconserved regions of putative NOXA1 protein activation domain confers isoform-specific inhibition of Nox1 oxidase and attenuation of endothelial cell migration. *J.Biol.Chem.* **288** 36437. PMID: 24187133.

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