

# Active Recombinant Full Length Rat Nos1 Protein, His tagged

**Cat. No.** Nos1-01RFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Rat Nos1 Protein with His tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ProteinLength</b>    | 1-1434 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | Nitric oxide synthases are a family of enzymes catalyzing the production of nitric oxide (NO) from L-arginine. NO is an important cellular signaling molecule. It helps modulate vascular tone, insulin secretion, airway tone, and peristalsis, and is involved in angiogenesis and neural development. It may function as a retrograde neurotransmitter. Nitric oxide is mediated in mammals by the calcium-calmodulin controlled isoenzymes eNOS (endothelial NOS) and nNOS (neuronal NOS). The inducible isoform, iNOS, is involved in immune response, binds calmodulin at physiologically relevant concentrations, and produces NO as an immune defense mechanism, as NO is a free radical with an unpaired electron. It is the proximate cause of septic shock and may function in autoimmune disease. |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Molecular Weight</b> | ~160 kDa/subunit; homodimer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bio-Activity</b>     | ≥500 U/mg. 1 U is defined as the amount of enzyme required to produce 1 nmol of NO (nitric oxide) per minute at 37 centigrade. NO synthesis is measured by the conversion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

of oxyhemoglobin to methemoglobin.

**Purity** ≥ 90% by SDS-PAGE

**Notes** Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -80 centigrade.

**Stability** Stable for at least 1 year after receipt when stored at -80 centigrade. Keep stock vial on ice during experiments.

**Storage** Long Term Storage: -80 centigrade

**Storage Buffer** In 50 mM TRIS, pH 7.4, containing 0.1 mM EDTA, 10% glycerol, 100 mM NaCl, 0.1 mM DTT, 10 µM tetrahydrobiopterin.

**Shipping** Dry Ice

## GENE INFORMATION

**Gene Name** NOS1 nitric oxide synthase 1 [ Homo sapiens (human) ]

**Official Symbol** NOS1

**Synonyms** NOS1; nitric oxide synthase 1 (neuronal); NOS; nitric oxide synthase, brain; nNOS; NOS type I; neuronal NOS; constitutive NOS; peptidyl-cysteine S-nitrosylase NOS1; bNOS; IHPS1; N-NOS; NC-NOS

**Gene ID** 4842

**mRNA Refseq** NM\_000620

**Protein Refseq** NP\_000611

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|     |        |
|-----|--------|
| MIM | 163731 |
|-----|--------|

|            |        |
|------------|--------|
| UniProt ID | P29475 |
|------------|--------|

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA