

## Active Recombinant Bovine NOS3 Protein

**Cat. No.** NOS3-22B    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Active recombinant bovine N-terminal His-tagged eNOS expressed in E. coli                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Species</b>          | Bovine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ProteinLength</b>    | 2-1205 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | Produces nitric oxide (NO) which is a messenger molecule with diverse functions.                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Form</b>             | 50 mM HEPES, pH 7.8, with 0.5 mM DTT, 0.5 mM EDTA, 300 mM sodium chloride, 2 mM calcium chloride, 10 µM tetrahydro-L-biopterin (hydrochloride), and 20% glycerol                                                                                                                                                                                                                                                                                                                           |
| <b>Molecular Mass</b>   | 134 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage</b>          | At -80 centigrade. Stability: ≥ 1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Shipping</b>         | Dry ice in continental US; may vary elsewhere                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Reference</b>        | 1. Qian, J., and Fulton, D. Post-translational regulation of endothelial nitric oxide synthase in vascular endothelium. <i>Front. Physiol.</i> 4, 347 (2013). 2. Heiss, C., Rodriguez-Mateos, A., and Kelm, M. Central role of eNOS in the maintenance of endothelial homeostasis. <i>Antioxid. Redox Signal.</i> 22(14), 1230-1242 (2015). 3. Siragusa, M., and Fleming, I. The eNOS signalosome and its link to endothelial dysfunction. <i>Pflugers Arch.</i> 468(7), 1125-1137 (2016). |

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**Unit Definition**

One unit of enzyme produces 1 nmol of nitric oxide per minute at 37 centigrade in 50 mM HEPES, pH 7.8, with 5 µM oxyhemoglobin, 1 mM calcium chloride, 20 µg/mL calmodulin, 0.1 mM NADPH, 50 M arginine, 12 µM tetrahydrobiopterin, and 170 µM DTT.

**GENE INFORMATION**

**Gene Name** NOS3 nitric oxide synthase 3 [ Bos taurus (domestic cattle) ]

**Official Symbol** NOS3

**Synonyms**

NOS3; nitric oxide synthase 3; nitric oxide synthase 3; EC-NOS; NOS type III; NOSIII; cNOS; constitutive NOS; eNOS; endothelial NOS; endothelial nitric oxide synthase; nitric oxide synthase 3 (endothelial cell); nitric oxide synthase, endothelial; EC 1.14.13.39

**Gene ID** 287024

**mRNA Refseq** NM\_181037

**Protein Refseq** NP\_851380

**UniProt ID** F1MY54

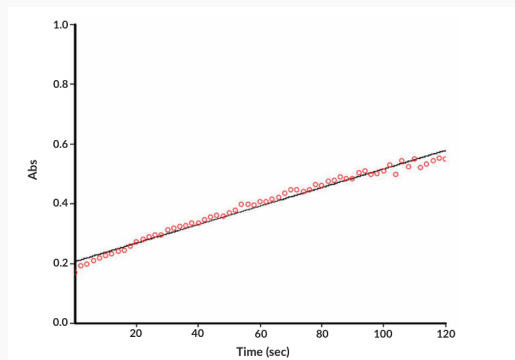
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## Activity



## SDS-PAGE

