

Recombinant Human Nitric Oxide Synthase 3 (Endothelial Cell)

Cat. No. NOS3-635H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Nitric Oxide Synthase 3 (Endothelial Cell) is produced in Sf9 cells.
Species	Human
Source	Sf9 Cells
Description	Endothelial NOS (eNOS), also known as Nitric oxide synthase 3 (NOS3) or constitutive NOS (cNOS), is a nitric oxide synthase, but also denotes the human gene encoding it. It generates NO in blood vessels and is involved with regulating vascular function. A constitutive Ca ²⁺ dependent NOS provides a basal release of NO. eNOS is associated with plasma membranes surrounding cells and the membranes of Golgi bodies within cells. Some association between a polymorphism in the gene and late-onset Alzheimer's disease in Chinese have been reported.
Formulation	Liquid. In 50mM triethanolamine (pH 7.5), 0.5mM EDTA, 7mM GSH, 20mM CHAPS, 1M E64, 1M leupeptin, 1M pepstatin A, 1mg/ml trypsin inhibitor and 10% glycerol.
Specific Activity	≥0.1nmol/100μl/min (U/100μl). Amount assayed 1μl Optimal conditions: 37°C, pH 7.0, 1mM L-arginine, 1mM NADPH, 10M (6R)-tetrahydrobiopterin, 5M FAD, 5M FMN, 50nM calmodulin, 1mM CaCl ₂ and 7mM GSH.
Storage	-80°C. eNOS is relatively unstable. Keep stock vial on ice at all times when performing experiments! Enzyme loses approx. 10-15% of activity during a single freeze/thaw cycle.

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GENE INFORMATION

Gene Name	NOS3 nitric oxide synthase 3 (endothelial cell) [Homo sapiens]
Synonyms	NOS3; nitric oxide synthase 3 (endothelial cell); eNOS; ECNOS; EC 1.14.13.39
Gene ID	4846
mRNA Refseq	NM_000603
Protein Refseq	NP_000594
MIM	163729
UniProt ID	P29474
Chromosome Location	7q36
Pathway	Arginine and proline metabolism; Calcium signaling pathway; Metabolic pathways; VEGF signaling pathway; Metabolism of nitric oxide
Function	FAD binding; FMN binding; NADP or NADPH binding; actin monomer binding; arginine binding; cadmium ion binding; calmodulin binding; heme binding; nitric-oxide synthase activity; oxidoreductase activity; protein binding; tetrahydrobiopterin binding

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