

Recombinant Rat NOS3 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52480

Size: 10ug, 100ug

Protein Name: Nitric oxide synthase 3 (EC 1.14.13.39) (Constitutive NOS) (cNOS) (EC-NOS) (NOS type III) (NOSIII) (Nitric oxide synthase, endothelial) (Endothelial NOS) (eNOS)

Synonym: Nos3

UniProt ID: Q62600

UniProt Link: www.uniprot.org/uniprotkb/Q62600/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1202 AA

Molecular Weight: 133 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGNLKS VGQEPGPPCGLGLGLGLGCGKQGPASPAPEPSQAPVPPSPTRPAPDHSPPLTRPPDGP
KFPRVK NWEVGSITYDTLSAQAAQQDGPCTPRRCLGSLVFPRKLQSRPTQGPSPTTEQLLGQARDFIN
QYYNSIKRSGSQAHEQRLQEVEAEVVATGT YQLRESELVFGAKQAWRNAPRCVGRIQWGLQVFD
ARDCRTAQEMFTYICNHIKYATNRGNLRSAITVFPQRYAGR GDFRIWNSQLVRYAGYRQQDGSVRG
DPANVEITELCIQHGWTPGNRFDVLP LLLQAPDEPPELFTLPPELVLEVPLEHPTLEWFAALGLRWY
ALPAVSNM LLEIGGLEFPAAPFSGWYMSSEIGMRDLCDPHRYNILEDVAVCMDLDTRTTSSLWKDKA
AVEINVAVLYSYQLAKVTIVDHHAATASFMK HLENEQKARGGCPADWAWIVPPISGSLTPVFHQEMV
NYFLSPA FRYQPD PWKGSAAKGTGITRKKTFKEVANAVKISASLMGTVM AKRVKATILYGSETGRAQ
SYAQQ LGR LFRKA FDRVLCMDEYDVVSLEHEALVLVVTSTFGNGDPPENGESFAAALMEMSGPY
NSSPRPEQH KSYKIRFNSVSCSDPLVSSWRRKR KESSNTDSAGALGTLR FCFVGLGSRAYPHFCF
ARAVDTRLEELGGERLLQLGQGDEL CGQEEAFRGWAQA AFQAACETFCVGEDAKAAARDIFSPKR
SWKRQRYRLSTQAESLQLLPRLTHVHRRKMFQATILSVENLQSSKSTRATILVRLDTGSQEGLQYQP
GDHIGVCPPNRPLVEALLSRVEDPPPSTEPVAVEQLEKGSPPGPPPGWVRDPRLP PCTLRQALTY
FLDITSPSPRLLRLLSTLAEESSEQQEAL SQDPRRYEEWKWFRCP TLLLEVLEQFPSVALPAPLILT
QLPLLQPRYYSVSSAPSAHPGEIHLTVAVLAYRTQDGLGPLHYGVCSTWMSQLKAGDPVPCFIRGA
PSFRLPPDPNLPCILVGP GTGIAPFRGFWDRLHDIEIKGLQPAPMTLVFGCRCSQLDHL YRDEVLD
AQQRGVFGQVLTAFSRDPGSPKTYVQDLLRTELA AEVHRVLCLEQGHMFVCGDVT MATSVLQTVQ



RILATEGSMELDEAGDVIGVLRDQQRYHEDIFGLTLRTQEVTSRIRTQSFSLQERQLRGAVPWSFDP
PTQETPGS

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Nitric oxide synthase 3 (EC 1.14.13.39) (Constitutive NOS) (cNOS) (EC-NOS) (NOS type III) (NOSIII) (Nitric oxide synthase, endothelial) (Endothelial NOS) (eNOS) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Produces nitric oxide (NO) which is implicated in vascular smooth muscle relaxation through a cGMP-mediated signal transduction pathway. NO mediates vascular endothelial growth factor (VEGF)-induced angiogenesis in coronary vessels and promotes blood clotting through the activation of platelets.

Subcellular Localization: Membrane, caveola . Cytoplasm, cytoskeleton . Golgi apparatus . Cell membrane . Note=Specifically associates with actin cytoskeleton in the G2 phase of the cell cycle, which is favored by interaction with NOSIP and results in a reduced enzymatic activity.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.