

Recombinant Human NOS2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50732

Size: 10ug, 100ug

Protein Name: Nitric oxide synthase, inducible (EC 1.14.13.39) (Hepatocyte NOS) (HEP-NOS) (Inducible NO synthase) (Inducible NOS) (iNOS) (NOS type II) (Peptidyl-cysteine S-nitrosylase NOS2)

Synonym: NOS2, NOS2A

UniProt ID: P35228

UniProt Link: www.uniprot.org/uniprotkb/P35228/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1153 AA

Molecular Weight: 131 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MACPWKFLFKTKFHQYAMNGEKDINNVEKAPCATSSPVTQDDLQYHNLSKQQNESPQPLVETGK
KSPESLVKLDATPLSSPRHVRINKWGSMTFQDTLHHKAKGILTCRSKSLGSLMTPKSLTRGPRDK
PTPPDELLPQAIEFVNQYYGSFKEAKIEEHLARVEAVTKEIETTGTQYQLTGDELIFATKQAWRNAPRCI
GRIQWSNLQVFDARSCSTAREMFEHICRHVRYSTNNGNIRSITVFPQRSKGKHDGFRVWNAQLIRYA
GYQMPDGSIRGDPANVEFTQLCIDLGWKPKYGRFDVVPLVLQANGRDPELFEIPDLVLEVAMEHP
KYEWFRELELKWYALPAVANMLLEVGGLEFPGCPFNWYMGTEIGVRDFCDVQRYNILEEVGRM
GLETHKLASLWKDQAVVEINIAVLHSFQKQNVTIMDHHSAAESFMKYMONEYRSRGGCPADWIWLV
PPMSGSITPVFHQEMLNLYLSPFYQQVEAWKTHVWQDEKRRPKRREIPLKVLVKAVLFACMLMRK
TMASRVVRTILFATETGKSEALAWDLGALFSCAFNPKVVCMDKYRLSCLEERLLLVTSTFGNGDC
PGNGEKLKSLFMLKELNNKFRYAVFGLGSSMYPRFCAFAHDIDQKLSHLGASQLTPMGEGDELSD
QEDAFRSWAVQTFKAACETFDVRGKQHIQIPKLYTSNVTWDPHHYRLVQDSQPLDLSKALSSMHAK
NVFTMRLKSRQNLQSPTSSRATILVELSCEDGQGLNYLPGEHLGVCNPGNQPALVQGILERVVDGPT
PHQTVRLEALDESGSYWVSDKRLPPCSLSQALTYFLDITTPPTQLLLQKLAQVATEEPERQRLEALC
QPSEYSKWKFTNSPTFLEVLEEFPSLRVSAGFLLSQLPILKPRFYSISSSRDHTPTEIHLTVAVVITYHT
RDGQGGLHHGVCSTWLNLSLKPQDPVPCFVRNASGFHLPEDPSHPCILIGPGTGIAFRSFWQQRLH
DSQHKGVRRGGRMTLVFGCRRPDEDHIYQEEMLEMAQKGVHLHAVHTAYSRLPGPKVYVQDILRQQ



LASEVLRVLHKEPGHLYVCGDVRMARDVAHTLKQLVAAKLKLNEEQVEDYFFQLKSQKRYHEDIFGA
VFPYEAKKDRVAVQPSSLEMSAL

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, inducible (EC 1.14.13.39) (Hepatocyte NOS) (HEP-NOS) (Inducible NO synthase) (Inducible NOS) (iNOS) (NOS type II) (Peptidyl-cysteine S-nitrosylase NOS2) 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 a messenger molecule with diverse functions throughout the body (PubMed:7504305, PubMed:7531687, PubMed:7544004, PubMed:7682706). In macrophages, NO mediates tumoricidal and bactericidal actions. Also has nitrosylase activity and mediates cysteine S-nitrosylation of cytoplasmic target proteins such as PTGS2/COX2 (By similarity). As component of the iNOS-S100A8/9 transnitrosylase complex involved in the selective inflammatory stimulus-dependent S-nitrosylation of GAPDH on 'Cys-247' implicated in regulation of the GAIT complex activity and probably multiple targets including ANXA5, EZR, MSN and VIM (PubMed:25417112). Involved in inflammation, enhances the synthesis of pro-inflammatory mediators such as IL6 and IL8 (PubMed:19688109).

Subcellular Localization: Cytoplasm, cytosol . Note=Localizes as discrete foci scattered throughout the cytosol and in the presence of SPSB1 and SPSB4, exhibits a more diffuse cytosolic localization.

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.