

Recombinant Rat NOS2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52449

Size: 10ug, 100ug

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

Synonym: Nos2

UniProt ID: Q06518

UniProt Link: www.uniprot.org/uniprotkb/Q06518/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1147 AA

Molecular Weight: 131 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MACPWKFLFRVKSYYQGDLKEEKDINNNEKTPGAIPSPPTQDDPKSHKHQNGFPQFLTGTAAQNVPE
SLDKLHVTPSTRPQHVRKINWNGEIFHDTLHHKATSDISCKSKLCMGSIMNSKSLTRGPRDKPTPV
EELLPPQAEFINQYYGSFKEAKIEEHLARLEAVTKEIETTGTYYQLTDELIFATKMAWRNAPRCIGRIQW
SNLQVFDARSCSTASEMFQHCIRHILYATNSGNIRSAITVFPQRS DGKHD FRIWNSQLIRYAGYQMPD
GTIRGDPATLEFTQLCIDLGWKPRYGRFDVLPLVLQAHGQDPEVFEIPPDVLVLEVTMEHPKYEWFE
LGLKWYALPAVANMLLEVGGLEFPACPFNGWYMGTEIGVRDFCDTQRYNILEEVGRRMGLEHTLA
SLWKDRAVTEINA AVLHSFQKQNVTIMDHHTASESFMKHMQNEYRARGGCPADWIWLVPPVSGSIT
PVFHQEMLNYYLSPFYQQIEPWKTHIWQDEKLRPRRREIRFTVLVKAVFFASVLMRKVMASRV RAT
VLFATETGKSEALARDLAALFSYAFNTKVVCMEQYKANTLEEEQLLLVVTSTFGNGDCPSNGQTLKK
SLFMMKELGHTFRYAVFGLGSSMYPQCAFAHDIDQKLSHLGASQLAPTGEDELSGQEDAFRSW
AVQTFRAACETFDVRSKHCIQIPKRYTSNATWEPEQYKLTQSPESLDLNKALSSIHAKNVFTMRKSL
QNLQSEKSSRTLLVQLTFEGSRGPSYLPGEHLGIFPGNQ TALVQGILERVDCSSPDQTVCLEVLD
ESGSYWVKDKRLPPCSLRQALTYFLDITTPPTQLQLHKLARFATEETHRQRLEALCQPSEYNDWKFS
NNPTFLEVLEEFPSLRVPA AFLLSQLPILKPRYSSISSSQDHTPSEVHLTVAVV TYRTRDGGGPLHHG
VCSTWINNLKPEDPVPCFVRSVSGFQLPEDPSQPCILIGPGTG IAPFRSFWQQR LHDSQHRGLKGG
RMTLVFGCRHPEEDHLYQEEMQEMVRKGVLFQVHTGYSRLPGKPKVYVQDILQKELADEVFSVLH
GEQGHLVYCGDVRMARDVATT LKKLVAAKLN LSEEQVEDYFFQLKSQKRYHEDIFGAVFSYGAKKG
NTLEEPKGTRL

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) (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. 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. As component of the iNOS-S100A8/9 transnitrosylase complex involved in the selective inflammatory stimulus-dependent S-nitrosylation of GAPDH implicated in regulation of the GAIT complex activity and probably multiple targets including ANXA5, EZR, MSN and VIM. Involved in inflammation, enhances the synthesis of pro-inflammatory mediators such as IL6 and IL8.

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.