

Recombinant Mouse NOS2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51372

Size: 10ug, 100ug

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

Synonym: Nos2, Inos1

UniProt ID: P29477

UniProt Link: www.uniprot.org/uniprotkb/P29477/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1144 AA

Molecular Weight: 131 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MACPWKFLFKVKSYSQSDLKEEKDINNNVKKTPCAVLSPTIQDDPKSHQNGSPQLLTGTAQNVPESL
DKLHVTSTRPQYVRIKNWGSGEILHDTLHHKATSDFTCKSKSCLGSIMNPKSLTRGPRDKPTPLEELL
PHAIEFINQYYGSFKEAKIEEHLARLEAVTKEIETTGTQYQLTDELIFATKMAWRNAPRCIGRIQWSNL
QVFDARNCSTAQEMFQHICRHILYATNNGNIRSITVFPQRS DGKHDFRLWNSQLIRYAGYQMPDGT
IRGDAATLEFTQLCIDLGWKPRYGRFDVLPVLVQADGQDPEVFEIPDLVLEVTEHPKYEFWFQELG
LKWYALPAVANMLLEVGGLEFPACPFNGWYMGTEIGVRDFCDTQRYNILEEVGRRMGLEHTLASL
WKDRAVTEINVAVLHSFQKQNVTIMDHHTASESFMKHMQNEYRARGGCPADWIWLVPVSGSITPV
FHQEMLNIVLSPFYQQIEPWKTHIWQNEKLRPRRREIRFRVLVKVVFASMLMRKVMASRVRATVL
FATETGKSEALARDLATLFSYAFNTKVVCMQYKASTLEEEQLLLVVTSTFGNGDCPSNGQTLKKS
FMLRELNHTFRYAVFGLGSSMYPQFCFAHDIDQKLSHLGASQLAPTGEDELSGQEDAFRSWAV
QTFRAACETFDVRSKHIIQIPKRFTSNATWEPQQYRLIQSPEPLDLNRLSSIIHAKNVFTMRLKSQQN
LQSEKSSRTLLVQLTFEGSRGPSYLPGEHLGIFPGNQ TALVQGILERVDCPTPHQTVCLEVLDES
GSYWVKDKRLPPCSLSQALTYFLDITTPPTQLQLHKLARFATDETDRQRLEALCQPSEYNDWKFSN
NPTFLEVLEEFPSLHVPAAFLLSQLPILKPRYSSISSSQDHTPSEVHLTVAVVTYRTRDGGQGPLHHGV
CSTWIRNLKPQDPVPCFVRSVSGFQLPEDPSQPICILIGPGTGIAFRSFVQQRLHDSQHKGLKGGGR
MSLVFGCRHPEEDHLYQEEMQEMVRKRVLFQVHTGYSRLPGPKPVYVQDILQKQLANEVLSVLHG



EQGHLYICGDVRMARDVATTLKKLVA TKLNLSEEQVEDYFFQLKSQKRYHEDIFGAVFSYGAKKGSA
LEEPKATRL

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) (Macrophage NOS) (MAC-NOS) (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:7503239). 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 (PubMed:16373578). As component of the iNOS-S100A8/9 transnitrosylase complex is 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 (By similarity). Involved in inflammation, enhances the synthesis of pro-inflammatory mediators such as IL6 and IL8 (By similarity).

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.