

Recombinant Human OAS3 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50749

Size: 10ug, 100ug

Protein Name: 2'-5'-oligoadenylate synthase 3 ((2-5')oligo(A) synthase 3) (2-5A synthase 3) (EC 2.7.7.84) (p100 OAS) (p100OAS)

Synonym: OAS3, P/OKcl.4

UniProt ID: Q9Y6K5

UniProt Link: www.uniprot.org/uniprotkb/Q9Y6K5/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1087 AA

Molecular Weight: 121 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MDLYSTPAAALDRFVARRLQPRKEFVEKARRALGALAAALRERGGRLGAAAPRVLKT VKGGSSGRG
TALKGGCDSELVIFLDCFKSYVDQRRARRAEILSEMRALESWWQNPVPGLRLTFPEQSVPGALQFR
LTSVDLEDWMDVSLVPAFNVLGQAGSGVKPKPQVYSTLLNSGCQGGEHAACFTELRRNFVNIRPAK
LKNLILLVKHWYHQVCLQGLWKETLPPVYALELLTIFAWEQGCKKDAFSLAEGRLTVLGLIQQHQHLC
VFWTVNYGFEDPAVGQFLQRQLKRPRPVILDPADPTWDLGNGAAWHWDLLAQEAASCYDHPCFLR
GMGDPVQSWKGPGLPRAGCSGLGHPIQLDPNQKTPENSKSLNAVYPRAGSKPPSCPAPGPTGAA
SIVPSVPGMALDLSQIPTKELDRFIQDHLKPSPQFQEQVKKAIIDILRCLHENCVHKASRVSKGGSFGR
GTDLRDGDVELIIFLNCFTDYKDQGPRAEILDEMRAQLESWWQDQVPSLSLQFPEQNVPEALQF
QLVSTALKSWTDVSLLPADFVAVGQLSSGTPKNPQVYSRLLTSGCQEGEHKACFAELRRNFMNIRPV
KLKNLILLVKHWYRQVAAQNKKGKGPAPASLPAYALELLTIFAWEQGCRQDCFNMAQGFRTVLGLV
QQHQQLCVYWTVNYSTEDPAMRMHLLGQLRKPRPLVLDPADPTWNVGHGSWELLAQEAAALGMQ
ACFLSRDGTSVQPWDVMPALLYQTPAGDLDFISEFLQPNRQFLAQVNKAVDTICSFLKENCFRNSP
IKVIKVVKGSSAKGTALRGRSDADLVVFLSCFSQFTEQGNKRAEIISEIRAQLEACQQRQFEVKFE
VSKWENPRVLSFSLTSQTMLDQSVDFDVLPAFDALGQLVSGSRPSSQVYVDLIHSYSNAGEYSTCF
TELQRDFIISRPTKLKSLIRLVKHWYQQCTKISKGRGSLPPQHGLELLTVYAWEQGGKDSQFNMAEG
FRTVLELVTQYRQLCIYWTINYNKDKTVGDFLKKQLQKPRPIILDPADPTGNLGHNARWDLLAKEAA
ACTSALCCMGRNGIPIQPWPVKA

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 2'-5'-oligoadenylate synthase 3 ((2-5')oligo(A) synthase 3) (2-5A synthase 3) (EC 2.7.7.84) (p100 OAS) (p100OAS) 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: Interferon-induced, dsRNA-activated antiviral enzyme which plays a critical role in cellular innate antiviral response. In addition, it may also play a role in other cellular processes such as apoptosis, cell growth, differentiation and gene regulation. Catalyzes preferentially the dimerization of ATP to form 2'-5'-diadenylate (2-5A), but can also form the trimeric 2'-5'-oligoadenylate. The oligoadenylate then binds to the inactive monomeric form of ribonuclease L (RNase L) leading to its dimerization and subsequent activation. Activation of RNase L leads to degradation of cellular as well as viral RNA, resulting in the inhibition of protein synthesis, thus terminating viral replication. Can mediate the antiviral effect via the classical RNase L-dependent pathway or an alternative antiviral pathway independent of RNase L. Displays antiviral activity against Chikungunya virus (CHIKV), Dengue virus, Sindbis virus (SINV) and Semliki forest virus (SFV).

Subcellular Localization: Cytoplasm. Nucleus.

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.