

Recombinant Human OAS2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50748

Size: 10ug, 100ug

Protein Name: 2'-5'-oligoadenylate synthase 2 ((2-5')oligo(A) synthase 2) (2-5A synthase 2) (EC 2.7.7.84) (p69 OAS / p71 OAS) (p69OAS / p71OAS)

Synonym: OAS2

UniProt ID: P29728

UniProt Link: www.uniprot.org/uniprotkb/P29728/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 719 AA

Molecular Weight: 82 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MNGESQLSSVPAQKLGWFIQEYLKPYEECQTLIDEMVNTICDVLQEPEQFPLVQGVAIGGSYGRKT
VLRGNSDGTLLVFFSDLKQFQDQKRSQRDILDKTGDKLKFCLFTKWLKNNFEIQKSLDGFTIQVFTKN
QRISFEVLAAFNALSLNDNPSPWIYRELKRS�DKTNASPGFAVCFTELQQKFFDNRPGKLDLILLIK
HWHQQCQKKIKDLPSPYALELLTVYAWEQGCRKDNFDIAEGVRTVLELIKCEKLCIYWMVNYNF
EDETIRNILLHQLQSARPVILDPVDPTNNVSGDKICWQWLKKEAQTWLTSPNLDNELPAPSWNVLPA
PLFTTPGHLLDKFIKEFLQPNKCFLEQIDSAVNIIRTFLKENCFRQSTAKIQIVRGGSTAKGTALKTGSD
ADLVVFHNSLSKSYTSQKNERHKIVKEIHEQLKAFWREKEEELEVSFEPKWKAPRVLSFSLKSKVLN
ESVSFDVLPFALGQLSSGSTPSPEVYAGLIDLYKSSDLPGGFSTCFTVLQRNFIRSRPTKLKDLIR
LVKHWYKECERKLKPKGSLPPKYALELLTIYAWEQGSGVPDFDTAEGFRTVLELVTQYQQLCIFWKV
NYNFEDETVRKFLLSQLQKTRPVILDPAEPTGDVGGGDRWCWHLLAKEAKEWLSSPCFKDGTGNPI
PPWKVPTMQTPGSCGARIHPVIVNEMFSSRSHRILNNSKRNF

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 2 ((2-5')oligo(A) synthase 2) (2-5A synthase 2) (EC 2.7.7.84) (p69 OAS / p71 OAS) (p69OAS / p71OAS) 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 (PubMed:10464285, PubMed:9880569). Activated by detection of double stranded RNA (dsRNA): catalyzes the formation of 2'-5'-oligoadenylates (2-5A) from polymerization of ATP which then bind to the inactive monomeric form of ribonuclease L (RNASEL) leading to its dimerization and subsequent activation (PubMed:10464285, PubMed:11682059, PubMed:9880569, PubMed:40412389). Activation of RNASEL leads to degradation of cellular as well as viral RNA, resulting in the inhibition of protein synthesis, thus terminating viral replication (PubMed:10464285, PubMed:9880569). Can mediate the antiviral effect via the classical RNASEL-dependent pathway or an alternative antiviral pathway independent of RNASEL (PubMed:21142819). In addition, it may also play a role in other cellular processes such as apoptosis, cell growth, differentiation and gene regulation (PubMed:21142819). May act as a negative regulator of lactation, stopping lactation in virally infected mammary gland lobules, thereby preventing transmission of viruses to neonates (By similarity). Non-infected lobules would not be affected, allowing efficient pup feeding during infection (By similarity).

Subcellular Localization: Cytoplasm . Cytoplasm, perinuclear region . Golgi apparatus membrane .

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.