

Recombinant Rat ADA2A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52313

Size: 10ug, 100ug

Protein Name: Alpha-2A adrenergic receptor (Alpha-2A adrenoreceptor) (Alpha-2A adrenoceptor) (Alpha-2AAR) (Alpha-2D adrenergic receptor) (CA2-47)

Synonym: Adra2a

UniProt ID: P22909

UniProt Link: www.uniprot.org/uniprotkb/P22909/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 465 AA

Molecular Weight: 51 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MFRREQPLAEGSFAPMGSLQPDAGNSSWNGTEAPGGGTRATPYSLQVTLTLVCLAGLLMLFTVFG
NVLVIIAVFTSRALKAPQNLFLVSLASADILVATLVIPFSLANEVMGYWYFGKVVCEIYLALDVLFTCTSS
IVHLCALSLDRYWSITQAI EYNLKRTPRRKAIIVTVWVISAVISFPPLISIEKKGAGGGGQQPAEPSCKIND
QKWYVISSSIGSFAPCLIMILVYVRIYQIAKRRTVPPSRRGPDACSAPPGGADRRPNGLGPERGA
GTAGAEAEPLPTQLNGAPGEPAPTRPRDGDALDLEESSSEHAERPQGPGKPERGPRAKGKTKAS
QVKPGDSLPRRGPGAAGPGASGSGQGEERAGGAKASRWGRQNRKRTFVLAVVIGVFVVCWF
PFFFTYTLIAVGCPVPYQLFNFFFWFGYCNSSLNPVIYTIFNHDFRRAFKKILCRGDRKRIV

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 Alpha-2A adrenergic receptor (Alpha-2A adrenoreceptor) (Alpha-2A adrenoceptor) (Alpha-2AAR) (Alpha-2D adrenergic receptor) (CA2-47) 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: Alpha-2 adrenergic receptors are G protein-coupled receptors for catecholamines that activate the G(i/o) protein pathway, thereby promoting adenylyl cyclase inhibition, ERK1/2 stimulation, and voltage-gated calcium channels suppression (PubMed:15213003). ADRA2A and ADRA2C mediates the presynaptic feedback inhibition of neurotransmitter release from noradrenergic nerve terminals in sympathetic and central nervous systems. ADRA2A inhibits transmitter release at high stimulation frequencies, whereas ADRA2C modulates neurotransmission at lower levels of nerve activity (By similarity).

Subcellular Localization: Cell membrane ; Multi-pass membrane protein .

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.