

Recombinant Human NFAC2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50710

Size: 10ug, 100ug

Protein Name: Nuclear factor of activated T-cells, cytoplasmic 2 (NF-ATc2) (NFATc2) (NFAT pre-existing subunit) (NF-ATp) (T-cell transcription factor NFAT1)

Synonym: NFATC2, NFAT1, NFATP

UniProt ID: Q13469

UniProt Link: www.uniprot.org/uniprotkb/Q13469/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 925 AA

Molecular Weight: 100 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MNAPERQPQPDGGDAPGHEPGGSPQDELDFSILFDYEYLNPNEEEEPNNAHKVASPPSGPAYPDDEL
DYGLKPYSPLASLSGEPGRFGEPDRVGPQKFLSAAKPAGASGLSPRIETPSHELIQAVGPLRMRD
AGLLVEQPPLAGVAASPRFTLPVPGFEGYREPLCLSPASSGSSASFISDTFSPYTSPCVSPNNGGPD
DLCPQFQNIPIAHYSPRTSPIMSPRTSLAEDSCLGRHSPVPRPASRSSSPGAKRRHSCEALVALPPG
ASPQRSRSPSPQSSHVAPQDHGSPAGYPPVAGSAVIMDALNSLATDSPCGIPPKMWKTSPDPSP
VSAAPSKAGLPRHIYPAVEFLGPCEQGERRNSAPESILLVPPTWPKPLVPAIPICSIPTASLPPLEWP
LSSQSGSYELRIEVQPKPHHRAHYETEGSRGAVKAPTGGHPVVQLHGYMENKPLGLQIFIGTADERI
LKPFAFYQVHRITGKTVTTSYEKIVGNTKVL EIPLEPKNNMRATIDCAGILKLRNADIELRKGETDIGR
KNTRVRLVFRVHIPESGRIVSLQTASNPIECQSRSAPHELPMVERQDTSCLVYGGQQMILTGQNFT
SESKVVFTEKTTDGGQIWEATEVDKDKSQPNMLFVEIPEYRNKHIRTVPKVNIFYVINGKRKRSQPQ
HFTYHPVPAIKTEPTDEYDPTLICSPHGGGLGSQPYYPQHMPVAESPCLVATMAPCQQFRTGLSSP
DARYQQQNPAAVLYQRSKSLSPSLLGYQQPALMAAPLSLADAHRSVLVHAGSQGQSSALLHPSPTN
QQASPVIIHYSPTNQQLRCGSHQEFQHIMYCENFAPGTTTRPGPPVVSQGGQRLSPGSYPTVIQQQNAT
SQRAAKNGPPVSDQKEVLPAGVTIKQEQLDQTYLDDVNEIRKEFSGPPARNQT

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 Nuclear factor of activated T-cells, cytoplasmic 2 (NF-ATc2) (NFATc2) (NFAT pre-existing subunit) (NF-ATp) (T-cell transcription factor NFAT1) 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: Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2, IL-3, IL-4, TNF or GM-CSF (PubMed:15790681). Promotes invasive migration through the activation of GPC6 expression and WNT5A signaling pathway (PubMed:21871017). Is involved in the negative regulation of chondrogenesis (PubMed:35789258). Recruited by AKAP5 to ORAI1 pore-forming subunit of CRAC channels in Ca(2+) signaling microdomains where store-operated Ca(2+) influx is coupled to calmodulin and calcineurin signaling and activation of NFAT-dependent transcriptional responses.

Subcellular Localization: Cytoplasm. Nucleus. Note=Cytoplasmic for the phosphorylated form and nuclear after activation that is controlled by calcineurin-mediated dephosphorylation. Rapid nuclear exit of NFATC is thought to be one mechanism by which cells distinguish between sustained and transient calcium signals. The subcellular localization of NFATC plays a key role in the regulation of gene transcription.

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.