

Recombinant Mouse NFAC1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51203

Size: 10ug, 100ug

Protein Name: Nuclear factor of activated T-cells, cytoplasmic 1 (NF-ATc1) (NFATc1) (NFAT transcription complex cytosolic component) (NF-ATc) (NFATc)

Synonym: Nfatc1, Nfat2, Nfatc

UniProt ID: O88942

UniProt Link: www.uniprot.org/uniprotkb/O88942/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 717 AA

Molecular Weight: 78 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MPNTSFPVPSKFPLGPPAAVCGSGETLRPAPPSGGTMKAAEEEHYSYVSPSVTSTLPLPTAHSALP
AACHDLQTSTPGISAVPSANHPPSYGGAVDSGPGSYFLSSGNTRPNGAPTLESPRIEITSYLGLHHG
SGQFFHDVEVEDVLPSCKRSPSTATLHLPSEAYRDPSCLPASSLSSRSCNSEASSYESNYSYPYA
SPQTSPWQSPCVSPKTTDPEEGFPRSLGACHLLGSPRHSPSTSPRASITEESWLGARGSRPTSPCN
KRKYSLNGRQPSCSPHHSPTSPHGSPPRVSVTEDTWLGNTTQYTSSAIVAAINALTTDSTLDLGDGV
PIKSRKTALEHAPSVALKVEPAGEDLGTTTPPTSDFPPEEYTFQHLRKGAFCQYLSVPQASYQWAKP
KLSPTSYSMPSPALDWQLPSHSGPYELRIEVQPKSHHRAHYETEGSRGAVKASAGGHPIVQLHG
YLENEPLTLQLFIGTADDRLLRPHAFYQVHRITGKTVSTTSHEILSNKVLLEIPLLPENNMRAIDCAGIL
KLRNSDIELRKGETDIGRKNTRVRLVFRVHIPQPNGRTLSLQVASNPICSQRSAQELPLVEKQSTDS
YPVIGGKKMVLSGHNFLQDSKVIFVEKAPDGHHVWEMEAKTDRDLCKPNSLVVEIPFRNQRTSPA
QVSFYVCNGKRRKRSQYQRFTYLPANGNSVFLTLSSSELRGGFY

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 1 (NF-ATc1) (NFATc1) (NFAT transcription complex cytosolic component) (NF-ATc) (NFATc) 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 or IL-4 gene transcription (PubMed:9388475). Also controls gene expression in embryonic cardiac cells. Could regulate not only the activation and proliferation but also the differentiation and programmed death of T-lymphocytes as well as lymphoid and non-lymphoid cells (By similarity). Required for osteoclastogenesis and regulates many genes important for osteoclast differentiation and function (PubMed:23990468, PubMed:26644563).

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. Translocation to the nucleus is increased in the presence of calcium in pre-osteoblasts (PubMed:21514407). The subcellular localization of NFATC plays a key role in the regulation of gene transcription (By similarity). Nuclear translocation of NFATC1 is enhanced in the presence of TNFSF11 (PubMed:26644563). Nuclear translocation is decreased in the presence of FBN1 which can bind and sequester TNFSF11 (PubMed:24039232).

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.