Recombinant NFAC2 protein (His tag)

Catalog Number	540264
Synonyms	NF-ATc2; NFATc2; NFAT pre-existing subunit; NF-ATp; T-cell transcription factor NFAT1
Species	Human
Expression System	E. coli
Accession	Q13469
Molecular Weight	Predictes a molecular mass of 34.44 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	394-682
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 394-682 aa (Q13469) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human NFATC2 (394-682) Fragment - A high-quality recombinant protein representing a stable and soluble 289-amino acid fragment of Nuclear factor of activated T-cells, cytoplasmic 2 (NFATc2). This carefully selected fragment maintains structural integrity and is ideal for investigating T-cell signaling pathways, cytokine regulation, and calcium-mediated transcriptional activation in research applications. NFATC2 is a crucial transcription factor that regulates inducible expression of cytokine genes in T-cells, particularly involved in the induction of IL-2, IL-3, IL-4, TNF-alpha, and GM-CSF. The protein plays a significant role in promoting invasive migration through GPC6 expression and WNT5A signaling pathway activation, while also participating in negative regulation of chondrogenesis. NFATC2 demonstrates dynamic subcellular localization, existing in phosphorylated form in the cytoplasm and translocating to the nucleus following calcineurin-mediated dephosphorylation. This calcium-dependent nuclear shuttling allows cells to distinguish between sustained and transient calcium signals, making NFATC2 a key regulator of gene transcription in response to calcium signaling. The protein is recruited to calcium signaling microdomains where it integrates store-operated calcium influx with calcineurin signaling to activate NFAT-dependent transcriptional responses.