Recombinant NFAC3 protein (His tag)

Catalog Number	547247
Synonyms	NF-ATc3; NFATc3; NFATx; T-cell transcription factor NFAT4; NF-AT4; NF-AT4c
Species	Human
Expression System	E. coli
Accession	Q12968
Molecular Weight	Predictes a molecular mass of 34.48 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	409-702
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 409-702 aa (Q12968) 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 NFATC3 Fragment (409-702) is a high-purity protein designed for studying the Rel homology domain (RHD) of Nuclear factor of activated T-cells, cytoplasmic 3. This fragment serves as an essential tool for investigating calcium-mediated transcriptional regulation, immune response pathways, and T-cell activation mechanisms in life science research. NFATC3 is a key transcriptional regulator in Homo sapiens, primarily involved in calcium-dependent signaling pathways. It binds to promoter regions such as TNFSF11/RANKL to modulate gene expression, playing critical roles in osteoblast regulation, arterial wall remodeling, cardiomyocyte development, and T-cell cytokine production, including IL-2 induction. The protein dynamically shuttles between cytoplasm and nucleus; it resides phosphorylated in the cytoplasm and translocates to the nucleus upon calcineurin-mediated dephosphorylation triggered by calcium influx. This translocation is influenced by factors like EDN1, ROCK signaling, and lipopolysaccharide, enabling NFATC3 to mediate responses to sustained calcium signals and immune stimuli, underscoring its importance in cellular adaptation and transcriptional control.