Recombinant NFAC1 protein (His tag)

Catalog Number	544239
Synonyms	NF-ATc1; NFATc1; NFAT transcription complex cytosolic component; NF-ATc; NFATc
Species	Human
Expression System	E. coli
Accession	O95644
Molecular Weight	Predictes a molecular mass of 33.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	411-697
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 411-697 aa (O95644) 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 NFATC1 Fragment (411-697) is a high-quality, stable protein derived from the human Nuclear factor of activated T-cells, cytoplasmic 1 (NF-ATc1). This 287-amino acid fragment is engineered for solubility and reliability, making it ideal for structural studies, biochemical assays, and research into T-cell signaling and transcriptional regulation. NFATC1 is a key transcription factor involved in the inducible expression of cytokine genes in T-cells, particularly in the transcription of IL-2 and IL-4. It regulates T-lymphocyte activation, proliferation, differentiation, and programmed cell death, and is essential for osteoclastogenesis, influencing genes critical for osteoclast differentiation and function. The protein's activity is modulated by its subcellular localization: it resides in the cytoplasm in its phosphorylated form and translocates to the nucleus upon calcineurin-mediated dephosphorylation. This nuclear translocation, enhanced by TNFSF11 and inhibited by FBN1, allows NFATC1 to respond to calcium signals and play a pivotal role in gene transcription, with implications for immune response and bone metabolism.