

Recombinant NFATC1 protein

Catalog No: 82148, 82748

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Source: Human

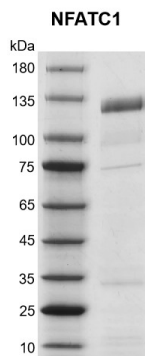
Buffer Contents: Recombinant NFATC1 protein is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 20% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

Background: NFATC1 (Nuclear factor of activated T-cells, cytoplasmic 1) is a transcription factor that plays a pivotal role in the immune system, particularly in T-cell and B-cell activation, development, and differentiation. It resides in the cytoplasm in an inactive, phosphorylated state. Upon cell stimulation, such as through T-cell receptor engagement, a calcium-dependent calcineurin signal triggers its dephosphorylation, leading to its rapid translocation into the nucleus. Inside the nucleus, NFATC1 binds to specific DNA sequences and, in cooperation with other transcription factors like AP-1, orchestrates the expression of genes critical for the immune response, including those encoding cytokines and cell surface receptors. Beyond immunology, it is also essential in other biological processes such as cardiac valve development, osteoclast genesis (bone remodeling), and adipocyte differentiation. Its dysregulation is associated with autoimmune diseases and cancer.

Protein Details: Recombinant NFATC1 protein was expressed in a baculovirus expression system as the full length protein (accession number NP_001265598.1) with an N-terminal FLAG tag. The molecular weight of NFATC1 is 102.51 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

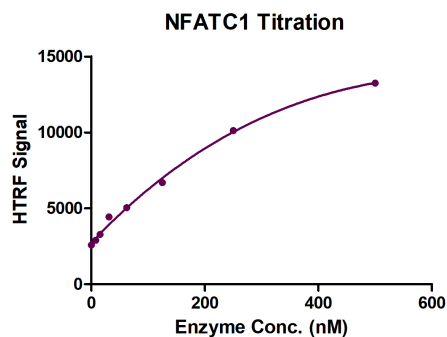


Recombinant NFATC1 protein gel

4-20% SDS-PAGE gel

MW: 102.51 kDa

Purity: >95%



HTRF Assay for Recombinant NFATC1 activity.

1 μ M substrate dsDNA (5' biotin-CTCAATGGAAAATGC 3') was incubated with different concentrations of NFATC1 protein in reaction buffer containing 50 mM HEPES-NaOH pH 7.0, 0.1% BSA at room temperature for 1 hour. Anti-FLAG antibody was used to detect reaction products.