Anti-NFAT1 Antibody [JA11-08]

ET1704-14

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Tissue, IHC-P
Molecular Wt:	Predicted band size: 100 kDa
Clone number:	JA11-08

Description: The NFAT (nuclear factor of activated T cells) family of transcription factors regulates cytokine expression in T cells. Members of the family include NFATc1 (NFATc), NFATc2 (NFATp), NFATn, NFATc3 (NFAT4, NFATx) and NFATc4 (NFAT3). Recognition of antigen by the T cell receptor (TCR) eventually activates the calcium-dependent protein phosphatase calcineurin. Once activated, calcineurin stimulates the translocation of NFATc1 (cytoplasmic) from the cytoplasm to the nucleus where it associates with NFATn (nuclear). Like NFATc1, NFATc2 resides in the cytoplasm and translocates to the nucleus subsequent to activation of calcineurin. Once in the nucleus, NFATc2 synergizes with AP-1 transcription factors to initiate transcription of cytokine genes. NFATc3 and NFATc4 share 65% sequence identity with other members of the NFAT family. They are similar to NFATc2 in that they also synergize with the AP-1 family of proteins.

Immunogen: Synthetic peptide within Human NFAT1 aa 21-70 / 925.

Positive control: Jurkat cell lysate, Ramos cell lysate, Raji cell lysate, Daudi cell lysate, human spleen tissue, human NK-T-cell lymphoma tissue, human colon cancer tissue.

Subcellular location: Cytoplasm. Nucleus.

Database links: SwissProt: Q13469 Human

Recommended Dilutions:

WB	1:1,000
IF-Tissue	1:50-1:200
IHC-P	1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

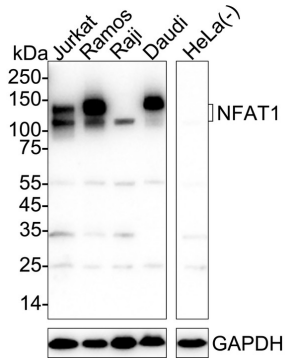

Fig1: Western blot analysis of NFAT1 on different lysates with Rabbit anti-NFAT1 antibody (ET1704-14) at 1/1,000 dilution.

Lane 1: Jurkat cell lysate
Lane 2: Ramos cell lysate
Lane 3: Raji cell lysate
Lane 4: Daudi cell lysate
Lane 5: HeLa cell lysate (negative)

Lysates/proteins at 30 µg/Lane.

Predicted band size: 100 kDa
Observed band size: 120/140 kDa

Exposure time: 10 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1704-14) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

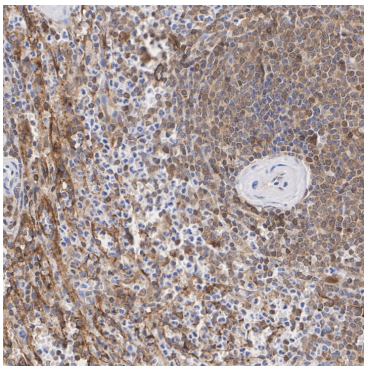

Fig2: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-NFAT1 antibody (ET1704-14) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1704-14) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

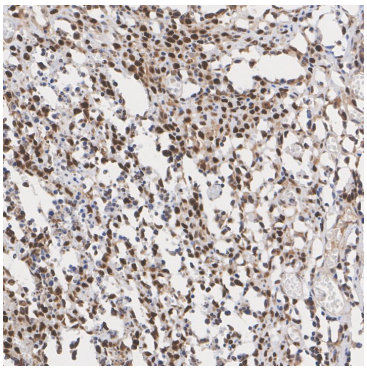

Fig3: Immunohistochemical analysis of paraffin-embedded human NK-T-cell lymphoma tissue with Rabbit anti-NFAT1 antibody (ET1704-14) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1704-14) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

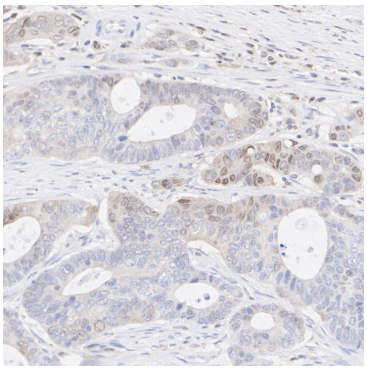

Fig4: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue with Rabbit anti-NFAT1 antibody (ET1704-14) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1704-14) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Makowski SL et al. A protease-independent function for SPPL3 in NFAT activation. Mol Cell Biol 35:451-67 (2015).
2. Chin-Smith EC et al. Nuclear factor of activated T-cell isoform expression and regulation in human myometrium. Reprod Biol Endocrinol 13:83 (2015).