Datasheet for ABIN5519044

anti-NFAT1 antibody (AA 594-676)

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Overview

Quantity:	100 µg
Target:	NFAT1
Binding Specificity:	AA 594-676
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA

Product Details

Purpose:	Rabbit IgG polyclonal antibody for NFAT1 detection. Tested with WB, Direct ELISA in Human,Mouse,Rat.
Immunogen:	E. coli-derived huamn NFAT1 recombinant protein (Position: Q594-H676).
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for NFAT1 detection. Tested with WB, Direct ELISA in Human,Mouse,Rat. Gene Name: nuclear factor of activated T-cells 2 Protein Name: Nuclear factor of activated T-cells, cytoplasmic 2
Purification:	Immunogen affinity purified.

Target Details

Target:	NFAT1
Alternative Name:	NFATC2 (NFAT1 Products)
Background:	NFATC2(Nuclear factor of activated T-cells, cytoplasmic 2), also known as NFATP or the 'preexisting component' of NFAT, is present in the cytosolic fraction of unstimulated T cells, which is also a member of the nuclear factor of activated T cells (NFAT) family. The NFATC2 gene is mapped on 20q13.2. NFATC2 is highly homologous to NFATC1 over a limited domain which shows similarity to the Dorsal/Rel family but has a wider tissue distribution. Ectopic expression of NFATC2 inhibited the basal activity of the human CDK4 promoter. Additionally, both Calna-/- and Nfatc2 -/- mice had elevated protein levels of Cdk4, confirming a negative regulatory role for the calcineurin/NFAT pathway. NFATC2 controls myoblast fusion at a specific stage of myogenesis after the initial formation of a myotube and is necessary for further cell growth. Overexpression of NFATC2 promoted differentiation of osteoclast precursor cells into tartrate-resistant acid phosphatase-positive (TRAP-positive) multinucleated osteoclast-like cells even in the absence of RANKL. Synonyms: Nuclear factor of activated T-cells, cytoplasmic 2, NF-ATc2, NFATc2, NFAT pre-existing subunit, NF-ATp, T-cell transcription factor NFAT1, NFATC2, NFAT1, NFATP
Gene ID:	4773
UniProt:	Q13469
Pathways:	RTK Signaling, WNT Signaling, Fc-epsilon Receptor Signaling Pathway, VEGF Signaling, BCR Signaling

Application Details

Application Notes:	Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.
Comment:	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot.
Restrictions:	For Research Use only

Handling

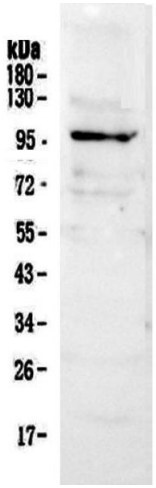
Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Handling

Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Publications

Product cited in:	Ma, Pan, Ren, Guo, Guo, Wei, Zheng, Chen: "15-oxoeicosatetraenoic acid mediates monocyte adhesion to endothelial cell." in: **Lipids in health and disease**, Vol. 16, Issue 1, pp. 137, (2018) (PubMed). Wang, Qing, Liu, Liu, Qiao, Cui, He, Zhao, Liu, Yan, Wang, Liang, Guo, Shen, Hou, Chen: "Mesenchymal stromal cells ameliorate oxidative stress-induced islet endothelium apoptosis and functional impairment via Wnt4-β-catenin signaling." in: **Stem cell research & therapy**, Vol. 8, Issue 1, pp. 188, (2018) (PubMed). Hoffman, Adeli: "LDL Receptor Gene-Ablated Hamsters: A Rodent Model of Familial Hypercholesterolemia with Dominant Inheritance and Diet-Induced Coronary Atherosclerosis." in: **EBioMedicine**, Vol. 28, pp. 17-18, (2018) (PubMed). Tian, Tao, Zhao, Tai, Liu, Liu: "Isolation and morphological characterization of ovine amniotic fluid mesenchymal stem cells." in: **Experimental animals**, Vol. 65, Issue 2, pp. 125-34, (2017) (PubMed). Ma, Pan, Chen, Guo, Zhao, Zheng, Chen: "Trimethylamine N-oxide in atherogenesis: impairing endothelial self-repair capacity and enhancing monocyte adhesion." in: **Bioscience reports**, Vol. 37, Issue 2, (2017) (PubMed).



Western Blotting

Image 1. Western blot analysis of NFAT1 using anti-NFAT1 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NFAT1 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 ug/mL overnight at 4â„ƒ, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NFAT1 at approximately 100KD. The expected band size for NFAT1 is at 100KD.