Product Datasheet

NFATC1 Antibody

Catalog No: #32303

Package Size: #32303-1 50ul #32303-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	NFATC1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB IHC IF
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous level of total NFATC1 protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human NFATC1.
Conjugates	Unconjugated
Target Name	NFATC1
Other Names	MGC138448; NF-ATC; NFAT2; NFATc;
Accession No.	Swiss-Prot:O95644NCBI Gene ID:4772
SDS-PAGE MW	78;101KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

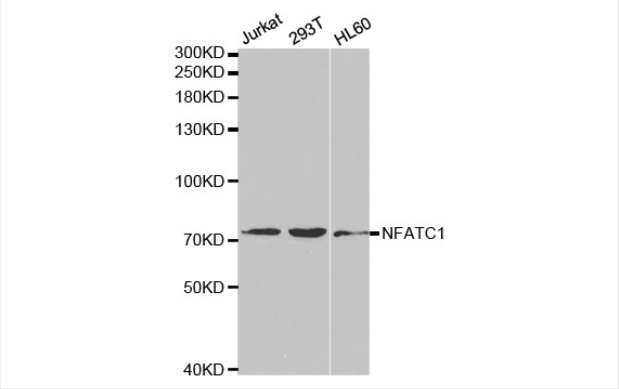
Application Details

Western blotting: 1:500 - 1:2000

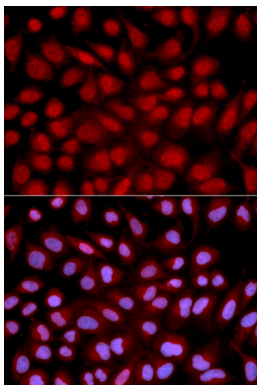
Immunohistochemistry: 1:50 - 1:100

Immunofluorescence: 1:50 - 1:200

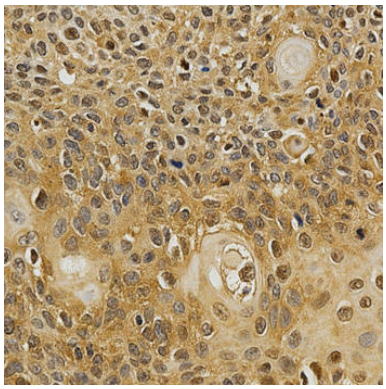
Images



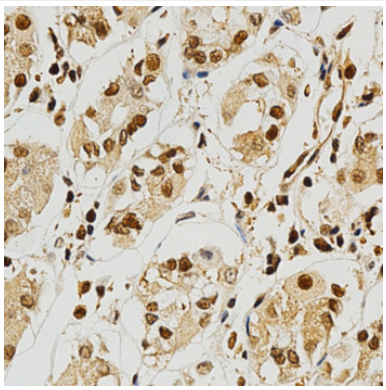
Western blot analysis of extracts of various cell lines, using NFATC1 antibody.



Immunofluorescence analysis of U2OS cell using NFATC1 antibody. Blue: DAPI for nuclear staining.



Immunohistochemistry of paraffin-embedded human esophageal cancer using NFATC1 antibody at dilution of 1:200 (x400 lens).



Immunohistochemistry of paraffin-embedded human stomach using NFATC1 antibody at dilution of 1:200 (x400 lens).

Background

The NFAT (nuclear factor of activated T cells) family of proteins consists of NFAT1 (NFATc2 or NFATp), NFAT2 (NFATc1 or NFATc), NFAT3 (NFATc4), and NFAT4 (NFATc3 or NFATx). All members of this family are transcription factors with a Rel homology domain and regulate gene transcription in concert with AP-1 (Jun/Fos) to orchestrate an effective immune response (1,2). NFAT proteins are predominantly expressed in cells of the immune system, but are also expressed in skeletal muscle, keratinocytes, and adipocytes, regulating cell differentiation programs in these cells (3). In resting cells, NFAT proteins are heavily phosphorylated and localized in the cytoplasm. Increased intracellular calcium concentrations activate the calcium/calmodulin-dependent serine phosphatase calcineurin, which dephosphorylates NFAT proteins, resulting in their subsequent translocation to the nucleus (2). Termination of NFAT signaling occurs upon declining calcium concentrations and phosphorylation of NFAT by kinases such as GSK-3 or CK1 (3,4). Cyclosporin A and FK506 are immunosuppressive drugs that inhibit calcineurin and thus retain NFAT proteins in the cytoplasm (5).

Published Papers

el at., Phytoestrogens protect joints in collagen induced arthritis by increasing IgG glycosylation and reducing osteoclast activation.In Int Immunopharmacol on 2020 Mar 12 by Du N, Song L, et al..PMID:32172207, , (2020)

PMID:32172207

el at., Wnt7b Induced Sox11 Functions Enhance Self renewal and Osteogenic Commitment of Bone Marrow Mesenchymal Stem Cells.In Stem Cells on 2020 Apr 28. by Yu F, Wu F,et al..PMID: 32346881, , (2020)

PMID:32346881

el at., Bioactive glass nanoparticles inhibit osteoclast differentiation and osteoporotic bone loss by activating lncRNA NRON expression in the extracellular vesicles derived from bone marrow mesenchymal stem cells. In Biomaterials on 2022 Feb 24 by Zhengyu Yang, Xiaodong Liu, et al.., , (2022)

PMID:35220020

el at., Bioactive glass nanoparticles inhibit osteoclast differentiation and osteoporotic bone loss by activating lncRNA NRON expression in the extracellular vesicles derived from bone marrow mesenchymal stem cells. In Biomaterials on 2022 Feb 24 by Zhengyu Yang, Xiaodong Liu, et al..PMID: 35220020, , (2022)

PMID:35220020

Yi Jiao;Yi Jiao;Zhaoran Wang;Zhaoran Wang;Wenya Diao;Wenya Diao;Qishun Geng;Qishun Geng;Xing Wang;Xing Wang;Xiaoxue Cao;Xiaoxue Cao;Tong Shi;Tong Shi;Jiahe Xu;Jiahe Xu;Lu Zhao;Lu Zhao;Zihan Wang;Zihan Wang;Tiantian Deng;Tiantian Deng;Lei Yang;Lei Yang;Tingting Deng;Tingting Deng;Cheng Xiao;Cheng Xiao el at., Increased Alleviation of Bone Destruction in Individuals with Rheumatoid Arthritis via the Coinhibition of the METTL3 and YTHDF1 Axis by the Combination of Triptolide and Medicarpin, , (2025)

PMID:

Note: This product is for in vitro research use only and is not intended for use in humans or animals.