

Product Datasheet

NFATC2/NFAT1 Antibody (25A10.D6.D2) - BSA Free NB300-504

Unit Size: 100 ug

Store at -20C. Avoid freeze-thaw cycles.

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NB300-504

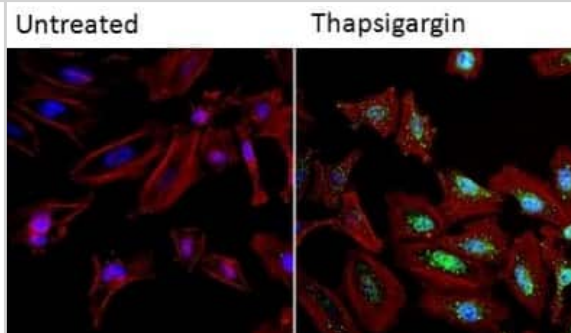
NFATC2/NFAT1 Antibody (25A10.D6.D2) - BSA Free

Product Information	
Unit Size	100 ug
Concentration	1 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	25A10.D6.D2
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	140 kDa
Product Description	
Host	Mouse
Gene ID	4773
Gene Symbol	NFATC2
Species	Human, Mouse, Rat
Reactivity Notes	Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Specificity/Sensitivity	Detects nuclear factor of activated T-cells (NFAT). This does not cross react with NFAT2 (NFATc, NFATc1).
Immunogen	Synthetic peptide corresponding to residues A(51) I S S P S G L A Y P D D V L D Y G L(69) of mouse NFATc2-A, B and C isoforms.
Product Application Details	
Applications	Western Blot, Gel Super Shift Assays, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Sandwich ELISA, Chromatin Immunoprecipitation (ChIP)
Recommended Dilutions	Western Blot 1 ug/ml, Immunohistochemistry, Immunocytochemistry/Immunofluorescence 1:100 - 1:1000, Immunoprecipitation 1:10 - 1:500, Immunohistochemistry-Paraffin 1:50 - 1:2000, Immunohistochemistry-Frozen 1:50 - 1:2000, Gel Super Shift Assays 1:1 - 1:100, Sandwich ELISA 1:100 - 1:2000, Chromatin Immunoprecipitation (ChIP) 1-3 ul
Application Notes	ChIP usage was reported in scientific literature (PMID: 15347678). In WB: Detects an approx. 140 kDa protein representing phosphorylated NFAT1 in resting immune cell and approx. 120 kDa protein in stimulated cells that represents a fully dephosphorylated NFAT1. Use in Immunohistochemistry reported in multiple pieces of scientific literature.

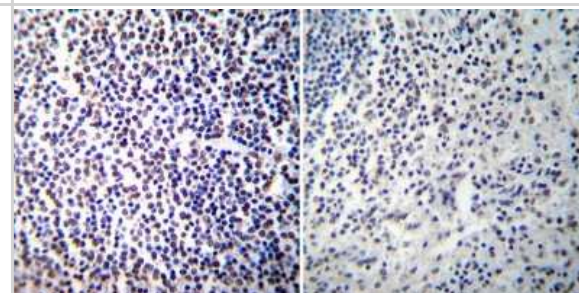


Images

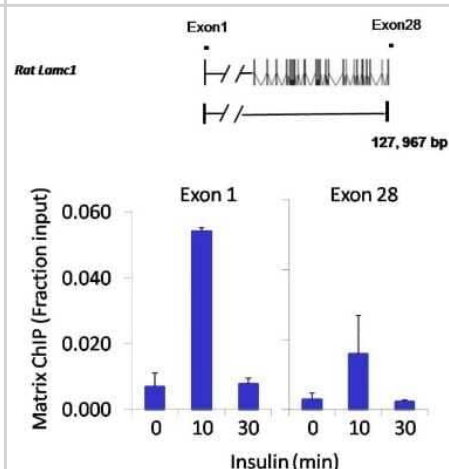
Immunocytochemistry/Immunofluorescence: NFATC2/NFAT1 Antibody (25A10.D6.D2) [NB300-504] - Analysis of NFATc2 (green) in HeLa cells. Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were left untreated (left panel) or treated with 1uM staurosporine (right panel) for 3 hours and probed with a NFATc2 monoclonal antibody, at a dilution of 1:100 for at least 1 hour at room temperature, washed with PBS, and incubated with DyLight 488 goat anti-mouse IgG secondary antibody at a dilution of 1:400 for 30 minutes at room temperature. F-Actin (red) was stained with DyLight 554 Phalloidin and nuclei (blue) were stained with Hoechst 33342 dye.



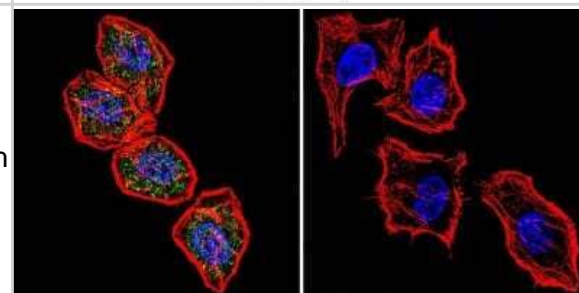
Immunohistochemistry-Paraffin: NFATC2/NFAT1 Antibody (25A10.D6.D2) [NB300-504] - Both normal and cancer biopsies of deparaffinized Human spleen tissue tissues.



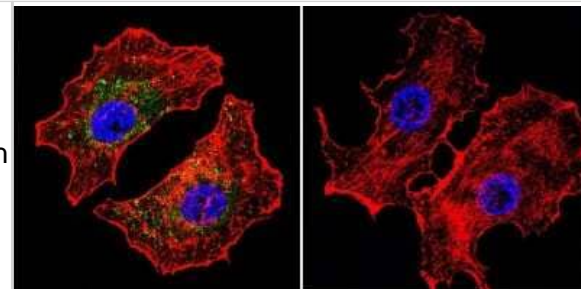
Chromatin Immunoprecipitation: NFATC2/NFAT1 Antibody (25A10.D6.D2) [NB300-504] - IP performed using Matrix ChIP assay with 1.0ul/100ul well of NFATc2 mab. Chromatin aliquots from $\sim 1 \times 10^5$ cells used per ChIP pull-down. Quantitative PCR data done x4 using 1ul of eluted DNA in 2ul SYBR real-time PCR reactions containing primers to amplify exon-1 or exon-28 of LAMC1. PCR calibration curves generated per primer pair from a series of sheared total genomic DNA. ChIP presented relative to the total amount of input chromatin. Results represent mean \pm SEM for 3 experiments. Representation of rat LAMC1 locus shown above data where boxes represent exons (black = translated regions, white = untranslated regions); zigzag line represents an intron, & straight line represents upstream sequence. Regions amplified by LAMC1 primers are represented by black bars. Data courtesy of the Innovators Program.



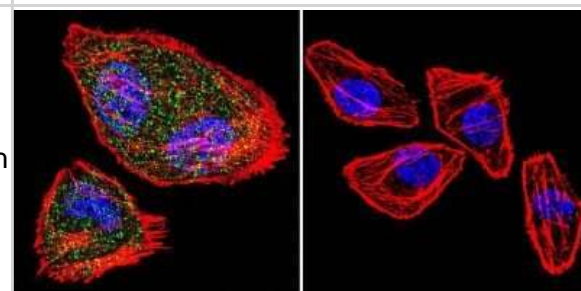
Immunocytochemistry/Immunofluorescence: NFATC2/NFAT1 Antibody (25A10.D6.D2) [NB300-504] - Analysis of NFATc2 using NFATc2 Monoclonal Antibody (25A10.D6.D2) shows staining in HeLa Cells. NFATc2 (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with an antibody recognizing NFATc2 at a dilution of 1:20 over night at 4C, washed with PBS and incubated with a DyLight-488 conjugated.



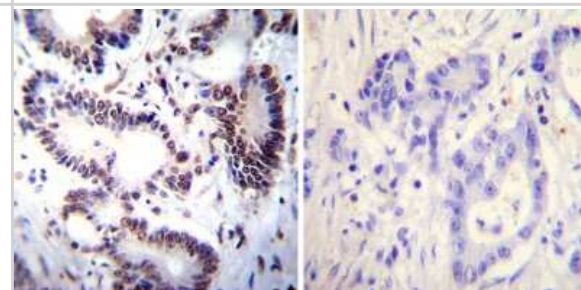
Immunocytochemistry/Immunofluorescence: NFATC2/NFAT1 Antibody (25A10.D6.D2) [NB300-504] - Analysis of NFATc2 using NFATc2 Monoclonal Antibody (25A10.D6.D2) shows staining in MCF-7 Cells. NFATc2 (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with an antibody recognizing NFATc2 at a dilution of 1:20 over night at 4C, washed with PBS and incubated with a DyLight-488 conjugated.



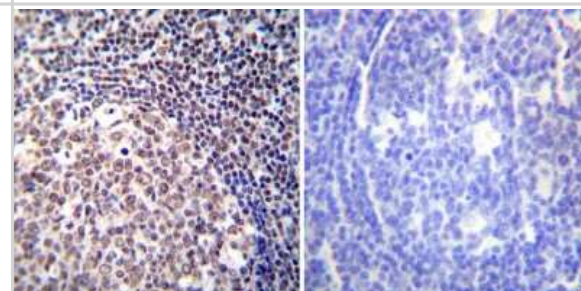
Immunocytochemistry/Immunofluorescence: NFATC2/NFAT1 Antibody (25A10.D6.D2) [NB300-504] - Analysis of NFATc2 using NFATc2 Monoclonal Antibody (25A10.D6.D2) shows staining in U251 Cells. NFATc2 (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with an antibody recognizing NFATc2 at a dilution of 1:20 over night at 4C, washed with PBS and incubated with a DyLight-488 conjugated.



Immunohistochemistry-Paraffin: NFATC2/NFAT1 Antibody (25A10.D6.D2) [NB300-504] - Cancer biopsies of deparaffinized Human colon carcinoma tissues.



Immunohistochemistry-Paraffin: NFATC2/NFAT1 Antibody (25A10.D6.D2) [NB300-504] - Both normal and cancer biopsies of deparaffinized Human tonsil tissues.



Publications

- Wang M, Zhao M, Xu S et al. TRPA1 deficiency attenuates cardiac fibrosis via regulating GRK5/NFAT signaling in diabetic rats *Biochemical pharmacology* 2023-06-26 [PMID: 37380112]
- Zhao M, Zheng Z, Xu Y et al. TRPA1 deficiency attenuates cardiac fibrosis via regulating GRK5/NFAT signaling in diabetic rats *Research Square* 2022-08-25 (ICC/IF, WB, Rat)
- Zhu L, Zhou X, Gu M et al. Dapl1 controls NFATc2 activation to regulate CD8+ T cell exhaustion and responses in chronic infection and cancer *Nature cell biology* 2022-07-01 [PMID: 35773432] (Chemotaxis, Mouse)
- Song S, Carr SG, McDermott KM et al. STIM2 (Stromal Interaction Molecule 2)-Mediated Increase in Resting Cytosolic Free Ca²⁺ Concentration Stimulates PASM C Proliferation in Pulmonary Arterial Hypertension Hypertension 2018-01-22 [PMID: 29358461] (Human)
- Younan P, Iampietro M, Nishida A et al. Ebola Virus Binding to Tim-1 on T Lymphocytes Induces a Cytokine Storm. *MBio* 2017-09-26 [PMID: 28951472] (WB, Mouse)
- Liu J, Han Z, Han Z, He Z Mesenchymal stem cell-conditioned media suppresses inflammation-associated overproliferation of pulmonary artery smooth muscle cells in a rat model of pulmonary hypertension. *Exp Ther Med* 2016-02-01 [PMID: 26893632] (IF/IHC)
- Cotroneo E, Ashek A, Wang L et al. Iron Homeostasis and Pulmonary Hypertension: Iron Deficiency Leads to Pulmonary Vascular Remodeling in the Rat. *Circ. Res.* 2015-03-12 [PMID: 25767292] (IF/IHC, WB, Rat)
- Iampietro M, Morissette G, Gravel A, Flamand L. Inhibition of Interleukin-2 Gene Expression by Human Herpesvirus 6B U54 Tegument Protein. *J Virol.* 2014-08-13 [PMID: 25122797] (WB, Human)
- Alpini G, Franchitto A, Demorrow S et al. Activation of alpha(1) -adrenergic receptors stimulate the growth of small mouse cholangiocytes via calcium-dependent activation of nuclear factor of activated T cells 2 and specificity protein 1 *Hepatology* 2011-02-01 [PMID: 21274883] (ICC/IF, IF/IHC, Mouse)
- Barlic J, McDermott DH, Merrell MN et al. Interleukin (IL)-15 and IL-2 reciprocally regulate expression of the chemokine receptor CX3CR1 through selective NFAT1- and NFAT2-dependent mechanisms. *J Biol Chem.* 2004-11-01 [PMID: 15347678]
- Kornau HC et al. Domain interaction between NMDA receptor subunits the postsynaptic density protein PSD-95. *Science* 269:1737-40. 1995-01-01 [PMID: 7569905]
- Landry JW, Banerjee S, Taylor B et al. Chromatin remodeling complex NURF regulates thymocyte maturation. *Genes Dev*;25(3):275-86. 2011-02-01 [PMID: 21289071]





Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
NB300-504UV	NFATC2/NFAT1 Antibody (25A10.D6.D2) [DyLight 350]

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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