Phospho-Nfatc2(s330) Antibody Blocking Peptide

PRODUCT OVERVIEW

Product Name	NFATC2 (S330), Blocking Peptide
Full Product Name	Phospho-NFATC2(S330) Antibody Blocking peptide
Product Gene Name	NFATC2 blocking peptide
Product Synonym Gene Name	NFAT1; NFATP
Product Synonym Names	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
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the region of human Phospho-NFATC2-pS330. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	NFATC2 (S330) peptide (MBS9225132) is used for blocking the activity of NFATC2 (S330) antibody (MBS9208214)
Molecular Weight	76,700 Da
OMIM	600490
Cellular Location	Cytoplasm. Nucleus. Note: Cytoplasmic for the phosphorylated form and nuclear after activation that is controlled by calcineurin-mediated dephosphorylation. Rapid nuclear exit of NFATC is thought to be one mechanism by which cells distinguish between sustained and transient calcium signals The subcellular localization of NFATC plays a key role in the regulation of gene transcription
Tissue Location	Expressed in thymus, spleen, heart, testis, brain, placenta, muscle and pancreas. Isoform 1 is highly expressed in the small intestine, heart, testis, prostate, thymus, placenta and thyroid. Isoform 3 is highly expressed in stomach, uterus, placenta, trachea and thyroid
Related Product Information for NFATC2 blocking peptide	Plays a role in the inducible expression of cytokine genes in T-cells, especially in the induction of the IL-2, IL-3, IL-4, TNF-alpha or GM-CSF. Promotes invasive migration through the activation of GPC6 expression and WNT5A signaling pathway.
Other Notes	Small volumes of NFATC2 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for NFATC2 purchase	MBS9225132 is a blocking peptide targeting NFATC2. Also known as Phospho-NFATC2(S330) Antibody Blocking peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NFATC2. It may not necessarily be applicable to this product.

NCBI GI #	27886539
NCBI GeneID	4773
NCBI Accession #	NP_036472
UniProt Primary Accession #	Q13469
UniProt Secondary Accession #	Q13468; Q5TFW7; Q5TFW8; Q9NPX6; Q9NQH3; Q9UJR2; B5B2N8; B5B2N9; B5B2P0; B5B2P2; B5B2P3

UniProt Related Accession #	Q13469
GenBank Nucleotide #	NM_012340.4
NCBI Official Full Name	nuclear factor of activated T-cells, cytoplasmic 2 isoform B
NCBI Official Synonym Full Names	nuclear factor of activated T-cells 2
NCBI Official Symbol	NFATC2
NCBI Official Synonym Symbols	NFAT1; NFATP
UniProt Protein Name	Nuclear factor of activated T-cells, cytoplasmic 2
UniProt Synonym Protein Names	NFAT pre-existing subunit; NF-ATp; T-cell transcription factor NFAT1
Protein Family	Nuclear factor of activated T-cells
UniProt Gene Name	NFATC2
UniProt Synonym Gene Names	NFAT1; NFATP; NF-ATc2; NFATc2; NF-ATp
UniProt Entry Name	NFAC2_HUMAN
NCBI Protein Information	nuclear factor of activated T-cells, cytoplasmic 2
NCBI Summary for NFATC2	This gene is a member of the nuclear factor of activated T cells (NFAT) family. The product of this gene is a DNA-binding protein with a REL-homology region (RHR) and an NFAT-homology region (NHR). This protein is present in the cytosol and only translocates to the nucleus upon T cell receptor (TCR) stimulation, where it becomes a member of the nuclear factors of activated T cells transcription complex. This complex plays a central role in inducing gene transcription during the immune response. Alternate transcriptional splice variants encoding different isoforms have been characterized. [provided by RefSeq, Apr 2012]
UniProt Comments for NFATC2	NFAT1: a transcription factor that plays a role in the inducible expression of cytokine genes in T cells, especially in the induction of the IL-2, IL-3, IL-4, TNF-alpha and GM-CSF. It is present in a phosphorylated the cytosol of unstimulated T cells. After T-cell activation, it is dephosphorylated by calcineurin and translocates to the nucleus as a part of a transcription complex. Two splice variant isoforms have been identified. Protein type: Transcription factor; DNA-binding Chromosomal Location of Human Ortholog: 20q13.2 Cellular Component: actin cytoskeleton; cytoplasm; cytosol; nucleoplasm; nucleus; plasma membrane Molecular Function: DNA binding; protein binding; transcription factor activity Biological Process: B cell receptor signaling pathway; cell migration; positive regulation of B cell proliferation; positive regulation of transcription, DNA-dependent; regulation of transcription, DNA-dependent; response to DNA damage stimulus; response to drug
Research Articles on NFATC2	**1.** These data suggest that NFATc2 expression is regulated by intracellular calcium and in vitro stretch, and that the stretch response in human myometrial cells is dependent upon intracellular calcium signalling pathways.
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