



JIP-1 (phospho Thr103) Polyclonal Antibody

Catalog No	YP-Ab-03553
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	MAPK8IP1
Protein Name	C-Jun-amino-terminal kinase-interacting protein 1
Immunogen	The antiserum was produced against synthesized peptide derived from human JIP1 around the phosphorylation site of Thr103. AA range:69-118
Specificity	Phospho-JIP-1 (T103) Polyclonal Antibody detects endogenous levels of JIP-1 protein only when phosphorylated at T103.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	MAPK8IP1; IB1; JIP1; PRKM8IP; C-Jun-amino-terminal kinase-interacting protein 1; JIP-1; JNK-interacting protein 1; Islet-brain 1; IB-1; JNK MAP kinase scaffold protein 1; Mitogen-activated protein kinase 8-interacting protein 1
Observed Band	113kD
Cell Pathway	Cytoplasm . Cytoplasm, perinuclear region . Nucleus . Endoplasmic reticulum membrane. Mitochondrion membrane. Accumulates in cell surface projections. Under certain stress conditions, translocates to the perinuclear region of neurons. In insulin-secreting cells, detected in both the cytoplasm and nucleus (By similarity). .
Tissue Specificity	Highly expressed in brain. Expressed in neurons, localizing to neurite tips in differentiating cells. Also expressed in the pancreas, testis and prostate. Low levels in heart, ovary and small intestine. Decreased levels in pancreatic beta cells sensitize cells to IL-1-beta-induced apoptosis.
Function	disease:Defects in MAPK8IP1 are a cause of non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance.,domain:A minimal inhibitory domain prevents pancreatic beta cell apoptosis in vitro, and prevents activation of c-jun by MAPK8, MAPK9 and MAPK10.,domain:The destruction boxes (D-box) may act as recognition signals



for degradation via the ubiquitin-proteasome pathway.,function:The JNK-interacting protein (JIP) group of scaffold proteins selectively mediates JNK signaling by aggregating specific components of the MAPK cascade to form a functional JNK signaling module. Required for JNK activation in response to excitotoxic stress. Cytoplasmic MAPK8IP1 causes inhibition of JNK-regulated activity by retaining JNK in the cytoplasm and inhibiting JNK phosphorylation of c-Jun. M

Background

This gene encodes a regulator of the pancreatic beta-cell function. It is highly similar to JIP-1, a mouse protein known to be a regulator of c-Jun amino-terminal kinase (Mapk8). This protein has been shown to prevent MAPK8 mediated activation of transcription factors, and to decrease IL-1 beta and MAP kinase kinase 1 (MEKK1) induced apoptosis in pancreatic beta cells. This protein also functions as a DNA-binding transactivator of the glucose transporter GLUT2. RE1-silencing transcription factor (REST) is reported to repress the expression of this gene in insulin-secreting beta cells. This gene is found to be mutated in a type 2 diabetes family, and thus is thought to be a susceptibility gene for type 2 diabetes. [provided by RefSeq, May 2011],

matters needing attention

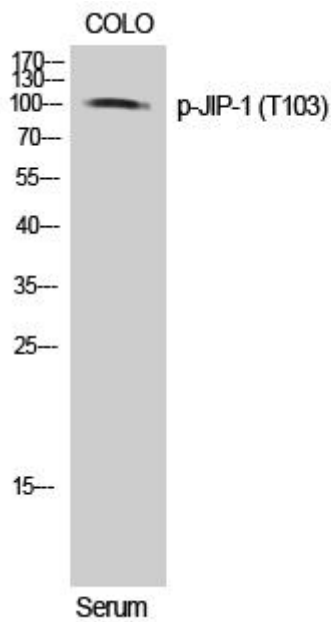
Avoid repeated freezing and thawing!

Usage suggestions

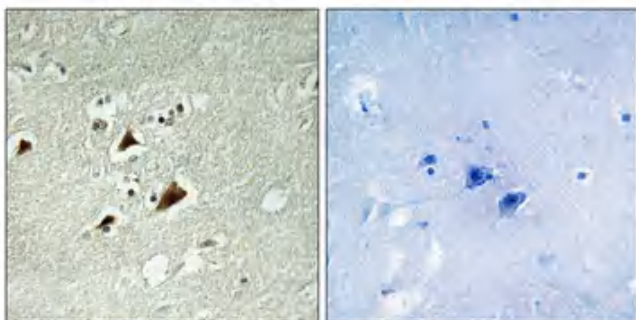
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



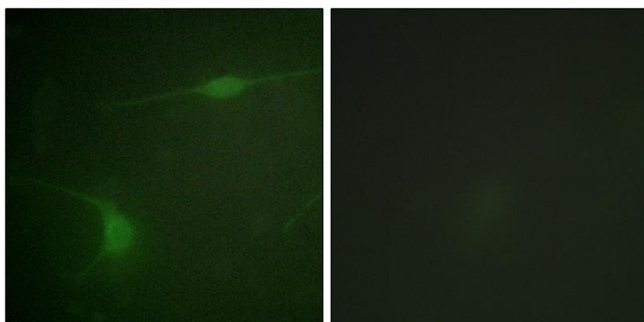
Products Images



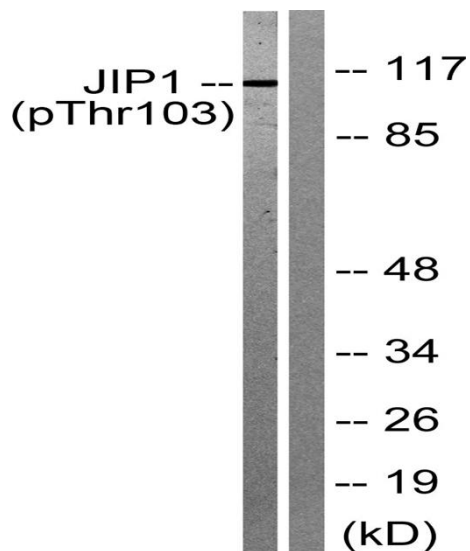
Western Blot analysis of COLO cells using Phospho-JIP-1 (T103) Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.



Immunofluorescence analysis of NIH/3T3 cells, using JIP1 (Phospho-Thr103) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from COLO205 cells treated with Serum 20% 15', using JIP1 (Phospho-Thr103) Antibody. The lane on the right is blocked with the phospho peptide.