

**产品名称: JIP-1 (phospho Thr103) Rabbit Polyclonal Antibody**  
**产品货号: APRab04907**



## 产品概述 (Summary)

|                        |                                                   |
|------------------------|---------------------------------------------------|
| 产品名称 (Production Name) | JIP-1 (phospho Thr103) Rabbit Polyclonal Antibody |
| 描述 (Description)       | Rabbit polyclonal Antibody                        |
| 宿主 (Host)              | Rabbit                                            |
| 应用 (Application)       | WB,IHC,ICC/IF,ELISA                               |
| 种属反应性 (Reactivity)     | Human,Mouse,Rat                                   |

## 产品性能 (Performance)

|                     |                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------|
| 偶联物 (Conjugation)   | Unconjugated                                                                                      |
| 修饰 (Modification)   | Phosphorylated                                                                                    |
| 同种型 (Isotype)       | IgG                                                                                               |
| 克隆 (Clonality)      | Polyclonal                                                                                        |
| 形式 (Form)           | Liquid                                                                                            |
| 存放说明 (Storage)      | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.          |
| 储存溶液 (Buffer)       | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| 纯化方式 (Purification) | Affinity purification                                                                             |

## 免疫原信息 (Immunogen)

|                        |                                                                                                                                                                                                                                     |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 基因名 (Gene Name)        | MAPK8IP1                                                                                                                                                                                                                            |
| 别名 (Alternative Names) | 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 |
| 基因 ID (Gene ID)        | 9479.0                                                                                                                                                                                                                              |
| 蛋白 ID (SwissProt ID)   | Q9UQF2.The antiserum was produced against synthesized peptide derived from human JIP1 around the phosphorylation site of Thr103. AA range:69-118                                                                                    |

## 产品应用 (Application)

|                      |                                                                          |
|----------------------|--------------------------------------------------------------------------|
| 稀释比 (Dilution Ratio) | WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:10000 |
|----------------------|--------------------------------------------------------------------------|

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**蛋白分子量 (Molecular Weight)**    113kDa

## 研究背景 (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],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. May also participate in ApoER2-specific reelin signaling. Directly, or indirectly, regulates GLUT2 gene expression and beta-cell function. Appears to have a role in cell signaling in mature and developing nerve terminals. May function as a regulator of vesicle transport, through interactions with the JNK-signaling components and motor proteins (By similarity). Functions as an anti-apoptotic protein and whose level seems to influence the beta-cell death or survival response.,miscellaneous:A chemically synthesized cell-permeable peptide of the minimal inhibitory domain decreases brain lesions in both transient and permanent ischemia. The level of protection is still high when administered 6 or 12 hours after ischemia.,PTM:Phosphorylated by MAPK8, MAPK9 and MAPK10. Phosphorylation on Thr-103 is also necessary for the dissociation and activation of MAP3K12.,PTM:Ubiquitinated. Two preliminary events are required to prime for ubiquitination; phosphorylation and an increased intracellular calcium concentration. Then, the calcium influx initiates ubiquitination and degradation by the ubiquitin-proteasome pathway.,similarity:Belongs to the JIP scaffold family.,similarity:Contains 1 PID domain.,similarity:Contains 1 SH3 domain.,subcellular location: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.,subunit:Forms homo- or heterooligomeric complexes. Binds specific components of the JNK signaling pathway namely, MAPK8, MAPK9, MAPK10, MAPKK7, MLK2, MLK3, MAP3K12 and MAP3K13. Also binds the proline-rich domain-containing splice variant of apolipoprotein E receptor 2 (ApoER2). Interacts, via the PID domain, with RGNF. Binds the cytoplasmic tails of LRP1 and LRP2 (Megalin). Binds the TPR motif-containing C-terminal of KNS2, then the pre-assembled MAPK8IP1 scaffolding complexes are transported as a cargo of kinesin, to the required subcellular location. Interacts with the cytoplasmic domain of APP.,tissue specificity:Highly expressed in brain. Expressed in neurons, localizing to neurite tips

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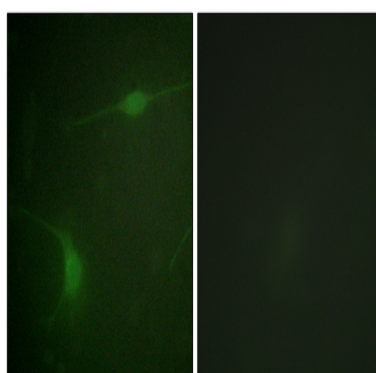


in differentiating cells. Also expressed in the pancreas, testis and prostate. Low levels in heart, ovary and small intestine. Decreased levels in pancreatic beta cells sensitize cells to IL-1-beta-induced apoptosis.,

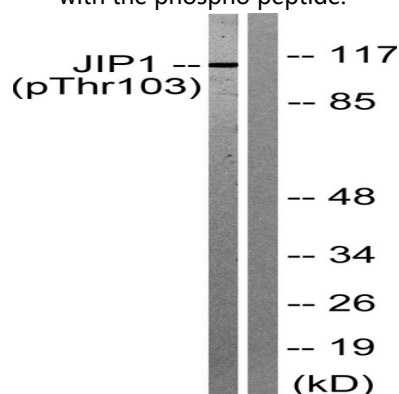
## 研究领域 (Research Area)

MAPK\_ERK\_Growth;MAPK\_G\_Protein;

## 图片 (Image Data)

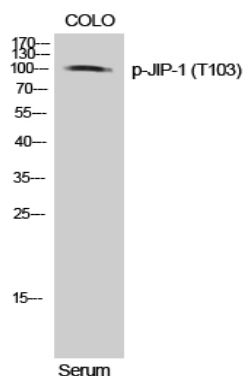


Immunofluorescence analysis of NIH/3T3 cells, using JIP1 (Phospho-Thr103) Antibody. The picture on the right is blocked with the phospho peptide.

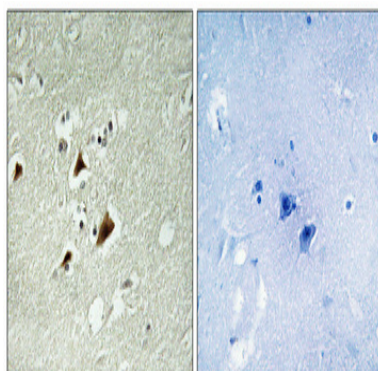


Western blot analysis of lysates from COLO205 cells treated with Serum 20% 15', using JIP1 (Phospho-Thr103) Antibody. The lane on the right is blocked with the phospho peptide.

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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) obtaned from antibody was pre-absorbed by immunogen peptide.

### 注意事项 (Note)

For research use only .