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Anti-SAPK4 Picoband Antibody

Catalog # ABO12407

Specification

Anti-SAPK4 Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	O15264
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Mitogen-activated protein kinase 13(MAPK13) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SAPK4 Picoband Antibody - Additional Information

Gene ID 5603

Other Names
Mitogen-activated protein kinase 13, MAP kinase 13, MAPK 13, 2.7.11.24, Mitogen-activated protein kinase p38 delta, MAP kinase p38 delta, Stress-activated protein kinase 4, MAPK13, PRKM13, SAPK4

Calculated MW
42090 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Rat

Tissue Specificity
Expressed in testes, pancreas, small intestine, lung and kidney. Abundant in macrophages, also present in neutrophils, CD4+ T-cells, and endothelial cells. .

Protein Name
Mitogen-activated protein kinase 13

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human SAPK4 (332-365aa KLTVDEWKQHIYKEIVNFSPIARKDSRRRSGMKL), different from the related mouse sequence by two amino acids, and from the related rat sequence by three amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-SAPK4 Picoband Antibody - Protein Information

Name MAPK13

Synonyms PRKM13, SAPK4

Function
Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK13 is one of the four p38 MAPKs which play an important role in the cascades of cellular responses evoked by extracellular stimuli such as pro-inflammatory cytokines or physical stress leading to direct activation of transcription factors such as ELK1 and ATF2. Accordingly, p38 MAPKs phosphorylate a broad range of proteins and it has been estimated that they may have approximately 200 to 300 substrates each. MAPK13 is one of the less studied p38 MAPK isoforms. Some of the targets are downstream kinases such as MAPKAPK2, which are activated through phosphorylation and further phosphorylate additional targets. Plays a role in the regulation of protein translation by phosphorylating and inactivating EEF2K. Involved in cytoskeletal remodeling through phosphorylation of MAPT and STMN1. Mediates UV irradiation induced up- regulation of the gene expression of CXCL14. Plays an important role in the regulation of epidermal keratinocyte differentiation, apoptosis and skin tumor development. Phosphorylates the transcriptional activator MYB in response to stress which leads to rapid MYB degradation via a proteasome-dependent pathway. MAPK13 also phosphorylates and down- regulates PRKD1 during regulation of insulin secretion in pancreatic beta cells.

Tissue Location
Expressed in testes, pancreas, small intestine, lung and kidney. Abundant in macrophages, also present in neutrophils, CD4+ T-cells, and endothelial cells.

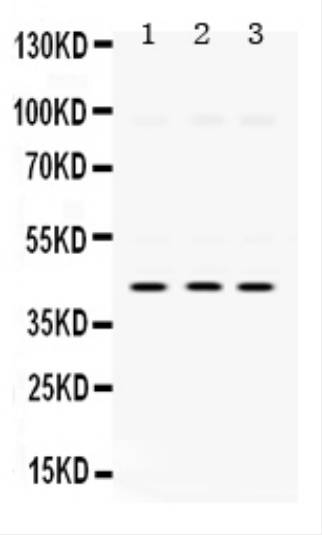
Anti-SAPK4 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

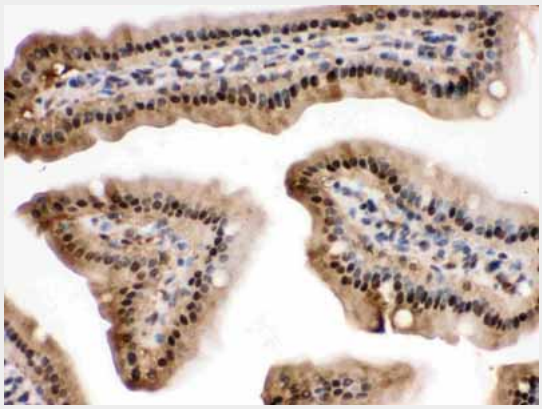
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SAPK4 Picoband Antibody - Images

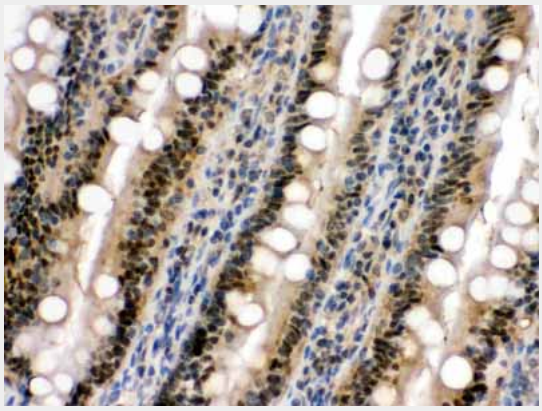
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Anti- SAPK4 Picoband antibody, ABO12407, Western blottingAll lanes: Anti SAPK4 (ABO12407) at 0.5ug/mlLane 1: Rat Kidney Tissue Lysate at 50ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: A549 Whole Cell Lysate at 40ugPredicted bind size: 42KDObserved bind size: 42KD

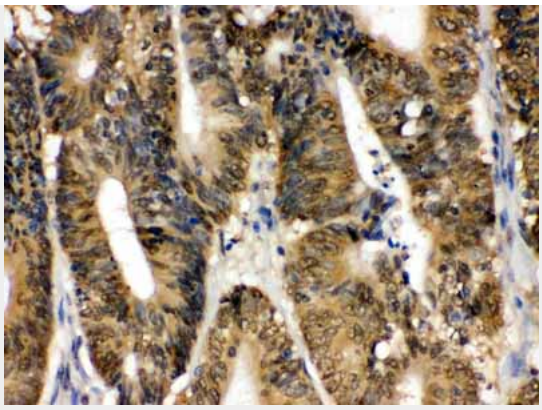


Anti- SAPK4 Picoband antibody, ABO12407,IHC(P)IHC(P): Mouse Intestine Tissue



Anti- SAPK4 Picoband antibody, ABO12407,IHC(P)IHC(P): Rat Intestine Tissue

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Anti- SAPK4 Picoband antibody, ABO12407,IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-SAPK4 Picoband Antibody - Background

MAPK13 (Mitogen-Activated Protein Kinase 13), also called p38-DELTA or Stress-Activated Protein Kinase 4(SAPK4), is an enzyme that in humans is encoded by the MAPK13 gene. The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is closely related to p38 MAP kinase, both of which can be activated by proinflammatory cytokines and cellular stress. MAP kinase kinases 3, and 6 can phosphorylate and activate this kinase. Transcription factor ATF2, and microtubule dynamics regulator stathmin have been shown to be the substrates of this kinase.