10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-MEKK1 Antibody
Catalog # ABO11226

Specification

Anti-MEKK1 Antibody - Product Information

Application	**IHC, WB**
Primary Accession	Q13233
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Mitogen-activated protein kinase kinase kinase 1(MAP3K1) 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-MEKK1 Antibody - Additional Information

Gene ID 4214

Other Names
Mitogen-activated protein kinase kinase kinase 1, 2.7.11.25, MAPK/ERK kinase kinase 1, MEK kinase 1, MEKK 1, MAP3K1, MAPKKK1, MEKK, MEKK1

Calculated MW
164470 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, Mouse, Rat

Protein Name
Mitogen-activated protein kinase kinase kinase 1

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

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human MEKK1(1418-1432aa PEVLRGQQYGRSCDV), identical to the related rat and mouse sequences.

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.**

Sequence Similarities
Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.

Anti-MEKK1 Antibody - Protein Information

Name MAP3K1

Synonyms MAPKKK1, MEKK, MEKK1

Function
Component of a protein kinase signal transduction cascade (PubMed:9808624). Activates the ERK and JNK kinase pathways by phosphorylation of MAP2K1 and MAP2K4 (PubMed:9808624). May phosphorylate the MAPK8/JNK1 kinase (PubMed:17761173). Activates CHUK and IKBKB, the central protein kinases of the NF-kappa-B pathway (PubMed:9808624).

Anti-MEKK1 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-MEKK1 Antibody - Images

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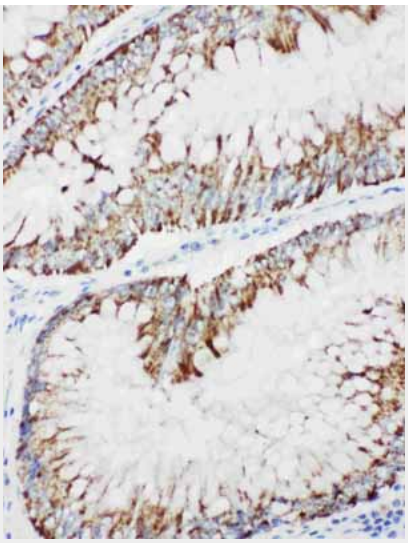
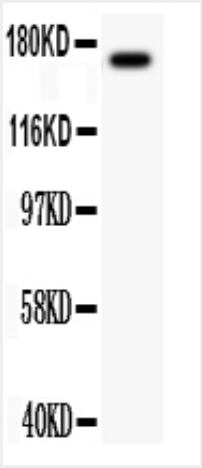


Anti-MEKK1 antibody, ABO11226, IHC(P)IHC(P): Human Intestinal Cancer Tissue



Anti-MEKK1 antibody, ABO11226, Western blottingAll lanes: Anti MEKK1 (ABO11226) at 0.5ug/mlWB: MCF-7 Whole Cell Lysate at 40ugPredicted bind size: 164KDObserved bind size: 164KD

Anti-MEKK1 Antibody - Background

MAP3K1(Mitogen-activated protein kinase kinase kinase 1), also known as MEKK1, MAPKKK1, MEK KINASE or MAP/ERK KINASE KINASE 1, is an enzyme that in humans is encoded by the MAP3K1 gene. Vinik et al.(1995) identified DNA sequence and size polymorphisms in intronic and 3-prime untranslated regions of the mouse Map3k1 gene and the human MAP3K1 homolog. Using these allele-specific polymorphisms, they mapped the Map3k1 gene in an intersubspecific backcross to mouse chromosome 13. They mapped the human MAP3K1 gene to chromosome 5 by somatic cell hybrid analysis. By assaying transfected COS-1 cells, Xia et al.(1998) showed that human MEKK1 activated JNK1(MAPK8) robustly and p38-alpha(MAPK14) less efficiently, but it had only a marginal effect on ERK2(MAPK1). MEKK1 directly and specifically interacted with JNKK1(MAP2K4) and activated JNKK1 in cells and in vitro. Phosphorylation of JNKK1 by MEKK1 disrupted their interaction. MEKK1 and JNK1 competed for binding to JNKK1. Xia et al.(1998) concluded that JNKK1 is the preferred MEKK1 substrate.