

**Mouse Map2k4 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP14920b**

## Specification

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### Mouse Map2k4 Antibody (C-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	<a href="#">P47809</a>
Other Accession	<a href="#">P45985</a> , <a href="#">Q07192</a> , <a href="#">NP_033183.1</a> , <a href="#">Q9DGR7</a>
Reactivity	Human, Mouse, Zebrafish
Predicted	Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	44114
Antigen Region	259-287

### Mouse Map2k4 Antibody (C-term) - Additional Information

Gene ID 26398

#### Other Names

Dual specificity mitogen-activated protein kinase kinase 4, MAP kinase kinase 4, MAPKK 4, C-JUN N-terminal kinase kinase 1, JNK kinase 1, JNKK 1, JNK-activating kinase 1, MAPK/ERK kinase 4, MEK 4, SAPK/ERK kinase 1, SEK1, Map2k4, Jnk1, Mek4, Mkk4, Prkmk4, Sek1, Serk1, Skk1

#### Target/Specificity

This Mouse Map2k4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 259-287 amino acids from the C-terminal region of mouse Map2k4.

#### Dilution

WB~~1:1000  
IHC-P~~1:10~50

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Mouse Map2k4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### Mouse Map2k4 Antibody (C-term) - Protein Information

**Name** Map2k4

**Synonyms** Jnkk1, Mek4, Mkk4, Prkmk4, Sek1, Serk1,

**Function** Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K7/MKK7, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7/MKK7 seems to be the prerequisite for JNK activation at least in response to pro-inflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14.

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

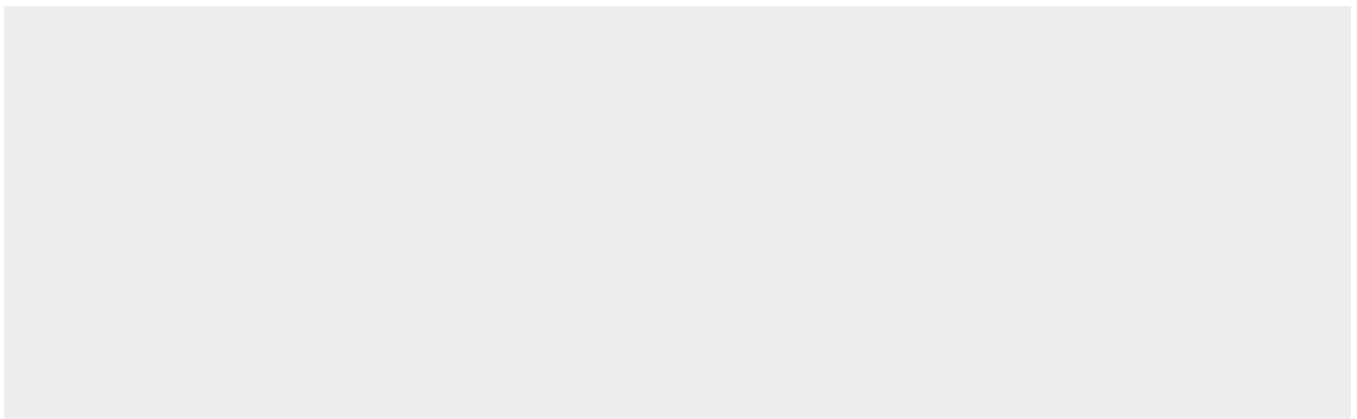
Strong expression is detected in most of the central nervous system and in liver and thymus during early stages of development. While expression in nervous system increases over time, expression in fetal liver and thymus gradually decreases as embryogenesis proceeds. High level of expression in the central nervous system persists throughout postnatal development and remained at a stable level in adult brain.

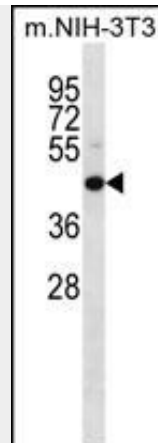
**Mouse Map2k4 Antibody (C-term) - Protocols**

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

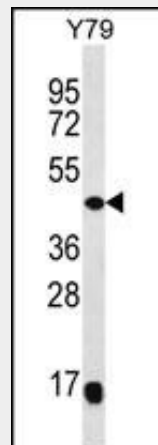
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Mouse Map2k4 Antibody (C-term) - Images**

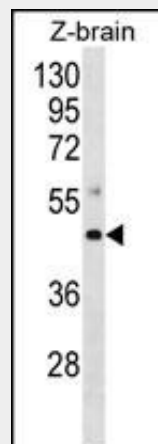




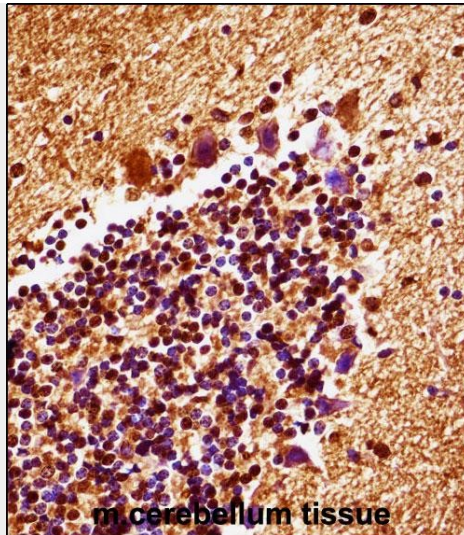
Mouse Map2k4 Antibody (C-term) (Cat. #AP14920b) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane). This demonstrates the Map2k4 antibody detected the Map2k4 protein (arrow).



Mouse Map2k4 Antibody (C-term) (Cat. #AP14920b) western blot analysis in Y79 cell line lysates (35ug/lane). This demonstrates the Map2k4 antibody detected the Map2k4 protein (arrow).



Mouse Map2k4 Antibody (C-term) (Cat. #AP14920b) western blot analysis in zebra fish brain tissue lysates (35ug/lane). This demonstrates the Mouse Map2k4 antibody detected the Mouse Map2k4 protein (arrow).



Mouse Map2k4 Antibody (C-term) (AP14920b) immunohistochemistry analysis in formalin fixed and paraffin embedded mouse cerebellum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of Mouse Map2k4 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **Mouse Map2k4 Antibody (C-term) - Background**

Dual specificity kinase that activates the JUN kinases MAPK8 (JNK1) and MAPK9 (JNK2) as well as MAPK14 (p38) but not MAPK1 (ERK2) or MAPK3 (ERK1).

#### **Mouse Map2k4 Antibody (C-term) - References**

Finegan, K.G., et al. *Cancer Res.* 70(14):5797-5806(2010)  
Ahn, Y.H., et al. *J. Biol. Chem.* 284(43):29399-29404(2009)  
Bogani, D., et al. *PLoS Biol.* 7 (9), E1000196 (2009) :  
Liu, W., et al. *Circ. Res.* 104(7):905-914(2009)  
Bulat, N., et al. *J. Lipid Res.* 50(1):81-89(2009)