abcam

Product datasheet

Anti-MAPK4 antibody ab96816

2 Images

Overview

Product name	Anti-MAPK4 antibody
Description	Rabbit polyclonal to MAPK4
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Cow
Immunogen	Recombinant protein fragment contain a sequence corresponding to a region within amino acids 1 and 296 of MAPK4 (NP_002738).
Positive control	WB: H1299 whole cell lysate; A431, HelaS3, HepG2, MOLT4 and Raji cell lysates ICC/IF: HeLa cell

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.01% Thimerosal (merthiolate) Constituents: 10% Glycerol, 0.1M Tris, 0.1M Glycine, pH 7
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab96816** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

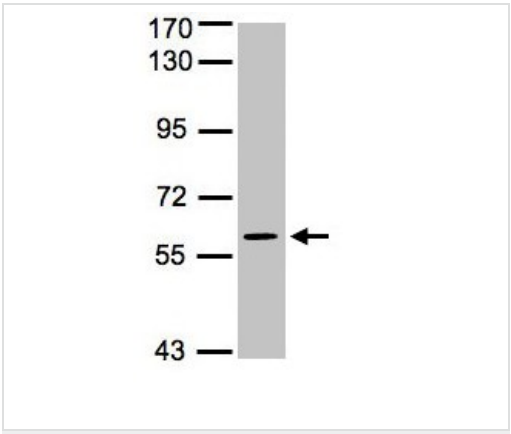
Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 66 kDa.

Application	Abreviews	Notes
ICC/IF		1/100 - 1/200.

Target

Function	Atypical MAPK protein. Phosphorylates microtubule-associated protein 2 (MAP2) and MAPKAPK5. The precise role of the complex formed with MAPKAPK5 is still unclear, but the complex follows a complex set of phosphorylation events: upon interaction with atypical MAPKAPK5, ERK4/MAPK4 is phosphorylated at Ser-186 and then mediates phosphorylation and activation of MAPKAPK5, which in turn phosphorylates ERK4/MAPK4. May promote entry in the cell cycle.
Tissue specificity	High expression in heart and brain.
Sequence similarities	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily. Contains 1 protein kinase domain.
Domain	The FRIEDE motif is required for docking MAPKAPK5. In contrast to classical MAPKs, the TXY motif within the activation loop is replaced by the SEG motif, whose phosphorylation activates the MAP kinases.
Post-translational modifications	Phosphorylated at Ser-186 by PAK1, PAK2 and PAK3 resulting in catalytic activation. Phosphorylated by MAPKAPK5 at other sites.
Cellular localization	Cytoplasm. Nucleus. Translocates to the cytoplasm following interaction with MAPKAPK5.

Images

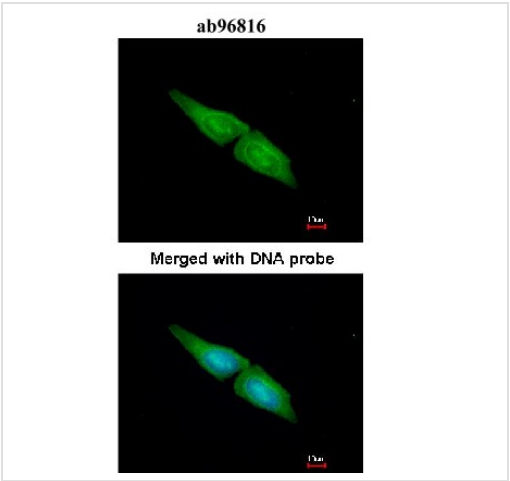


Western blot - MAPK4 antibody (ab96816)

Anti-MAPK4 antibody (ab96816) at 1/1000 dilution + H1299 whole cell lysate at 30 µg

Predicted band size: 66 kDa

7.5% SDS Page



Immunocytochemistry/ Immunofluorescence - MAPK4 antibody (ab96816)

Immunofluorescence analysis of MAPK4 in paraformaldehyde fixed HeLa, using ab96816 at a 1/200 dilution.
The lower image was merged with DNA probe.

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