Product Specification Sheet

Mitogen-activated protein kinase 8 antibody

Cat # MAPK811-A	Rabbit Anti-Human MAPK8 antibody	**SIZE**: 100 µg
Cat # MAPK811-C	Recombinant Human MAPK8 protein control for Western blotting	**SIZE**: 100 µl

Mitogen-activated protein kinase 8 (also known as JNK1) is an enzyme that in humans is encoded by the MAPK8 gene. MAPK/JNK family members act as an integration point for multiple biochemical signals, and are involved in several cellular processes including proliferation, transcription and differentiation. This kinase is activated by various cell stimuli, and targets specific transcription factors, and thus mediates immediate-early gene expression in response to cell stimuli. The activation of this kinase by tumor-necrosis factor alpha (TNF-alpha) is found to be required for TNF-alpha induced apoptosis. This kinase is also involved in UV radiation induced apoptosis, which is thought to be related to cytochrom c-mediated cell death pathway. MAPK8 (JNK1) is activated by the presence of malfolded proteins in the endoplasmic reticulum. It is also a crucial mediator of insulin resistance and obesity.

Source of Antigen or Antibodies

Uniprot: P45983

Host: Rabbit

Clonality: Polyclonal

Immunogen: Full length recombinant MAPK8

Purification: Ammonium sulfate followed by protein affinity purification

Species Reactivity: Human

Cross reactivity: MAPK8 is highly conserved across various species. The antibody is expected to cross-react with species in which <80% homology is observed.

Subcellular Location: Nuclear

Recommended Secondary Antibody: Goat anti-Rabbit IgG-HRP (**ADI cat#20320)**

Negative Control: Non-immune Rabbit IgG (**ADI cat# 20009-1**).

MAPK811-C: Contains a recombinant E.coli expressed full length human MAPK8 protein at a concentration of 5 ng/µl in Laemmli buffer (62.5 mM Tris-HCL, pH 6.8, 2% SDS, 10% glycerol, 5% BME, and 0.002% bromphenol blue). Heat for 5 minutes at 95°C then load 1-5 µl. Store at -20°C in suitable size aliquots, do not expose to multiple free/thaw cycles. **Note:** Due to the addition of tags, the protein appears slightly larger than native protein.

Form & Storage of Antibodies

☐ **Affinity pure IgG Solution**
Concentration: 0.5 mg/ml Volume: 200 µl
Supplied in PBS, pH 7.4 + 0.1% BSA
The antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

☐ **Lyophilized powder**
Reconstitute powder in 200 µl distilled water to 0.5 mg/ml

Storage:

Short-term: 4°C for 1 month

Long-term: at –20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at –20°C.

Recommended Usage

ELISA: Assay dependent concentration. Typically, between 0.1-2.0 µg/ml for capture/detection antibodies.

Western Blotting: 0.5-1.0 µg/ml
Predicted band size: 48 kDa

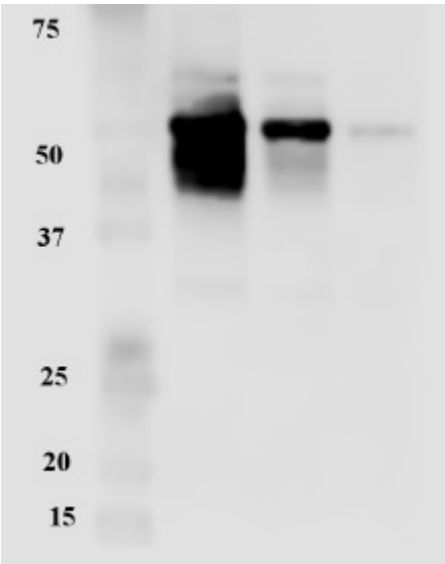
IHC-P: 1-10 µg/ml.

The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Immunocytochemistry or IP. These methods have not been tested by ADI.

This product is for In vitro research use only.

Related materials available from ADI

Catalog#	Description
BCL11-A	Rabbit Anti-Human BCL-2 antibody
BCL21-A	Rabbit Anti-Mouse BCL-2 antibody
BCL2-C	Recombinant BCL-2 control for Western blotting
HP5311-A	Rabbit anti-Human P53 antibody
HP5311-C	Recombinant Human P53 protein control for Western blotting
CASP3-A	Rabbit anti-Mouse Capase 3 antibody
AKT1-A	Rabbit anti-Human AKT1 antibody
AKT1-C	Recombinant AKT1 control for Western blotting
PCNA11-A	192801IA



Western blotting: 5, 1, and 0.2 ng of recombinant MAPK8 was heated for 5 minutes at 95°C then electrophoretically separated on a 10% SDS-PAGE gel. The gel was run at 100V for ~1 hour and 30 minutes then transferred to a 0.2 µm nitrocellulose membrane using the 'Mixed MW' settings on a Transblot Turbo (Biorad). The blot was blocked for 1 hour at room temperature with 1% Casein. **MAPK811-C** was diluted with TBST+0.1% BSA to 1 ug/ml and incubated overnight at 4°C. The blot was washed with TBS-T 3 times for 5 minutes each. Goat anti-rabbit IgG HRP (**ADI cat#20320**) was diluted in TBST+0.1% BSA at a 1:20,000 dilution (25 ng/ml) then incubated for 1 hour at room temperature. The blot was washed 3 times with TBS-T for 5 minutes each. The blot was then incubated with ADI Femto ECL substrate (**ADI cat#80210**) for 5 minutes and imaged on a CCD imaging system (C-DiGit, LI-COR).