abcam

Product datasheet

HRP Anti-MEK2 antibody [Y78] ab200607

KO VALIDATED Recombinant RabMAb

3 Images

Overview

Product name	HRP Anti-MEK2 antibody [Y78]
Description	HRP Rabbit monoclonal [Y78] to MEK2
Host species	Rabbit
Conjugation	HRP
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat whole cell lysate.
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	Y78
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab200607 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		1/7500. Detects a band of approximately 45 kDa (predicted molecular weight: 44 kDa).

Target

Function

Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. Activates the ERK1 and ERK2 MAP kinases.

Involvement in disease

Defects in MAP2K2 are a cause of cardiofaciocutaneous syndrome (CFC syndrome) [MIM:115150]; also known as cardio-facio-cutaneous syndrome. CFC syndrome is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy. Some affected individuals present with ectodermal abnormalities such as sparse, friable hair, hyperkeratotic skin lesions and a generalized ichthyosis-like condition. Typical facial features are similar to Noonan syndrome. They include high forehead with bitemporal constriction, hypoplastic supraorbital ridges, downslanting palpebral fissures, a depressed nasal bridge, and posteriorly angulated ears with prominent helices. The inheritance of CFC syndrome is autosomal dominant.

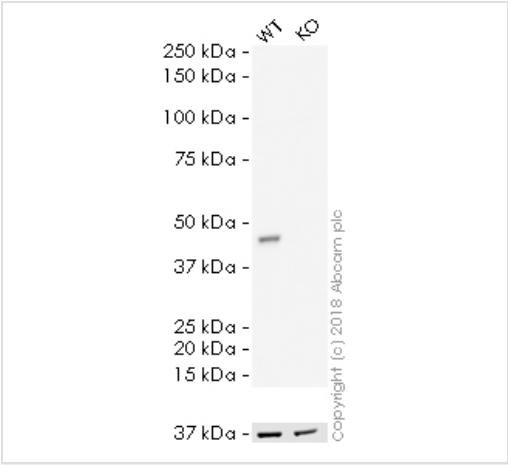
Sequence similarities

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.
Contains 1 protein kinase domain.

Post-translational modifications

MAPKK is itself dependent on Ser/Thr phosphorylation for activity catalyzed by MAP kinase kinase kinases (RAF or MEKK1).
Acetylation of Ser-222 and Ser-226 by Yersinia yopJ prevents phosphorylation and activation, thus blocking the MAPK signaling pathway.

Images



Western blot - HRP Anti-MEK2 antibody [Y78] (ab200607)

All lanes : HRP Anti-MEK2 antibody [Y78] (ab200607) at 1/7500 dilution

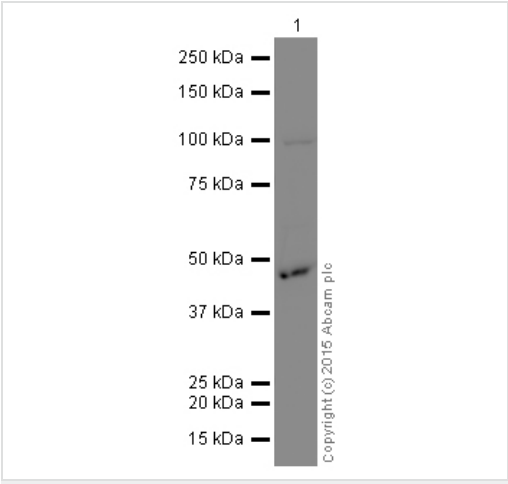
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : MAP2K2 (MEK2) knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 44 kDa
Observed band size: 44 kDa

Exposure time: 30 seconds

ab200607 was shown to specifically react with MEK2 in wild-type HAP1 cells as signal was lost in MAP2K2 (MEK2) knockout cells. Wild-type and MAP2K2 (MEK2) knockout samples were subjected to SDS-PAGE. Ab200607 and **ab184095** (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor® 680) loading control) were incubated overnight at 4°C at 1/7500 dilution and 1/1000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.



Western blot - HRP Anti-MEK2 antibody [Y78] (ab200607)

HRP Anti-MEK2 antibody [Y78] (ab200607) at 1/7500 dilution + Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate at 10 µg

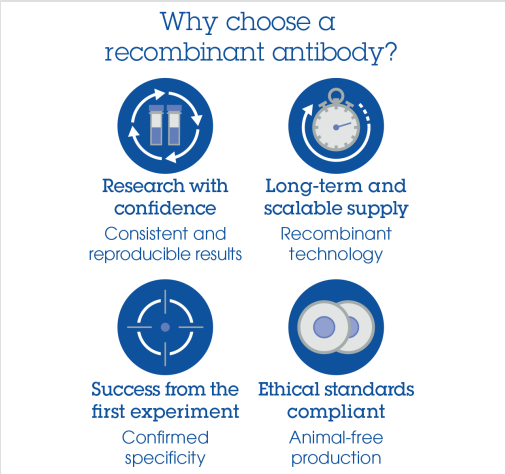
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 44 kDa
Observed band size: 45 kDa
Additional bands at: 100 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 10 seconds

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab200607 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.



HRP Anti-MEK2 antibody [Y78] (ab200607)

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