abcam

Product datasheet

Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] ab205926

KO VALIDATED Recombinant RabMAb

4 References 8 Images

Overview

Product name	Anti-p38 gamma/MAPK12 antibody [EPR6528(N)]
Description	Rabbit monoclonal [EPR6528(N)] to p38 gamma/MAPK12
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human skeletal muscle lysate; HEK-293T, HeLa, K562, C6 and PC-12 whole cell lysates; Rat heart, spleen and muscle lysates. ICC/IF: A673 and K562 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. 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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6528(N)

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab205926 in the following tested applications.

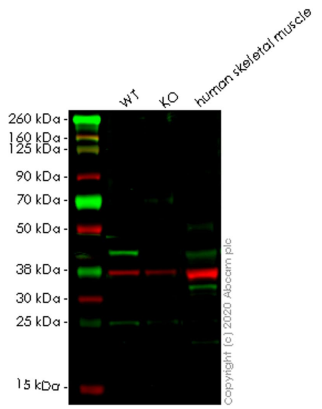
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa).
ICC/IF		1/500.

Target

Function	Responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating downstream targets. Plays a role in myoblast differentiation and also in the down-regulation of cyclin D1 in response to hypoxia in adrenal cells suggesting MAPK12 may inhibit cell proliferation while promoting differentiation.
Tissue specificity	Highly expressed in skeletal muscle and heart.
Sequence similarities	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily. Contains 1 protein kinase domain.
Domain	The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.
Post-translational modifications	Dually phosphorylated on Thr-183 and Tyr-185, which activates the enzyme.
Cellular localization	Cytoplasm. Mitochondrion. Mitochondrial when associated with SH3BP5.

Images



Western blot - Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926)

All lanes : Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 2 : MAPK12 knockout HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 3 : Human skeletal muscle tissue lysate

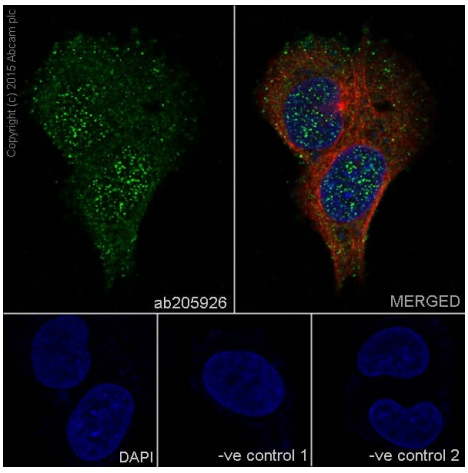
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Lanes 1-3: Merged signal (red and green). Green - ab205926 observed at 42 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab205926 Anti-MAPK 12 antibody [EPR6528(N)] was shown to specifically react with MAPK 12 in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line **ab266280** (knockout cell lysate **ab258041**) was used. Wild-type and MAPK 12 knockout samples were subjected to SDS-PAGE. ab205926 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



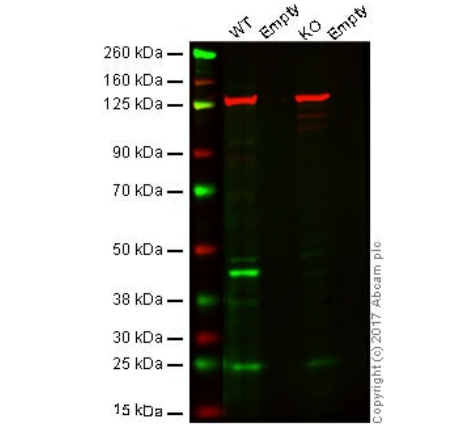
Immunocytochemistry/ Immunofluorescence - Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A673 (Human muscle Ewing's Sarcoma cell line) cells labeling MAPK 12 with ab205926 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and cytoplasmic staining on A673 cell line. The nuclear counterstain is DAPI (blue). Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

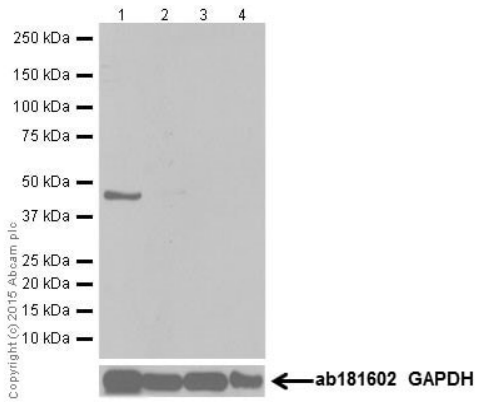
-ve control 1: ab205926 at 1/500 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Western blot - Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926)

Lane 1: Wild type HAP1 whole cell lysate (0 µg)
Lane 2: empty knockout HAP1 whole cell lysate (20 µg)
Lane 3: MAPK 12 whole cell lysate (0 µg)
Lanes 1 - 3: Merged signal (red and green). Green - ab205926 observed at 45 kDa. Red - loading control, **ab18058**, observed at 124 kDa.



Western blot - Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926)

All lanes : Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926) at 1/10000 dilution

Lane 1 : Human skeletal muscle tissue lysate
Lane 2 : Human fetal kidney tissue lysate
Lane 3 : Human fetal liver tissue lysate
Lane 4 : Human fetal skin tissue lysate

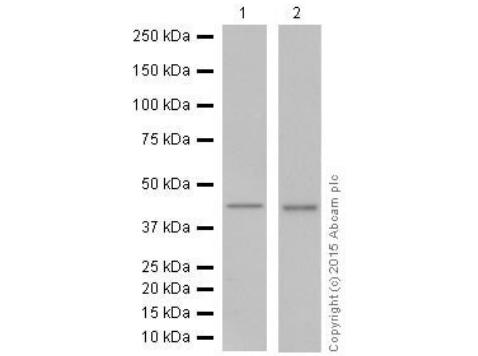
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926)

All lanes : Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926) at 1/1000 dilution

Lane 1 : HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate
Lane 2 : K562 (Human chronic myelogenous leukemia cells from bone marrow) whole cell lysate

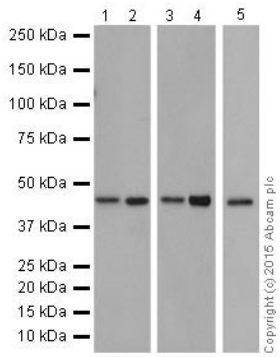
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/10000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926)

All lanes : Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926) at 1/1000 dilution

Lane 1 : Rat heart tissue lysate
Lane 2 : Rat spleen tissue lysate
Lane 3 : C6 (Rat glial tumor cell line) whole cell lysate
Lane 4 : PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate
Lane 5 : Rat muscle tissue lysate

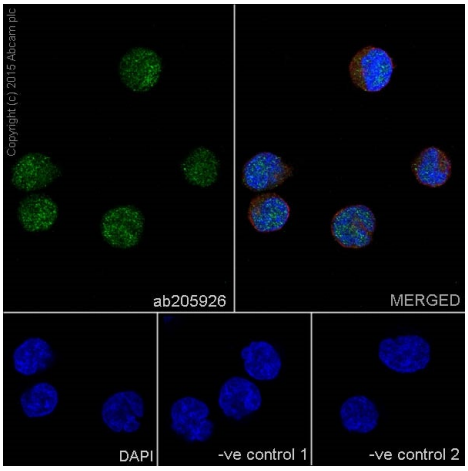
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/10000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1 and 2: 3 minutes; Lane 3 and 4: 1 minute; Lane 5: 30 seconds



Immunocytochemistry/ Immunofluorescence - Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized K562 (Human chronic myelogenous leukemia cells from bone marrow) cells labeling MAPK 12 with ab205926 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and cytoplasmic staining on K562 cell line. The nuclear counterstain is DAPI (blue). Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

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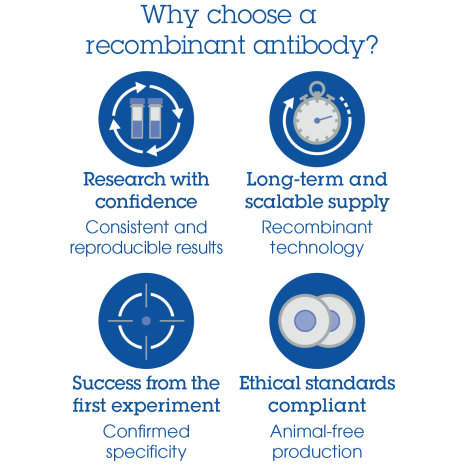

Anti-p38 gamma/MAPK12 antibody [EPR6528(N)] (ab205926)

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