

Purified anti-MAPK14 Antibody

Catalog# / Size	602651 / 25 µg 602652 / 100 µg
Clone	5A1-C5-F11
Regulatory Status	RUO
Other Names	Mitogen-Activated Protein Kinase 14 (MAPK14), cytokine suppressive anti-inflammatory Drug Binding Protein, PRKM14, PRKM15, p38, SAPK2A
Isotype	Mouse IgG1, κ
Description	MAPK14 is a member of the p38 MAPK family of serine/threonine-specific kinases. MAPK14 plays a critical role in signal transduction, and upon activation, modulates the activity of diverse signaling families, such as the TNF, TGF, and EGFR pathways, and regulates diverse behaviors including inflammation, stress response, cell cycle, apoptosis, transcription and translation. MAPK14 is important for organogenesis, participating in the development of the heart and blood vessels.

Product Details

Verified Reactivity	Human, Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant human MAPK14 protein fragments
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	WB - Quality tested IHC-P, ICC - Verified
Recommended Usage	Each lot of this antibody is quality control tested by western blotting. For western blotting, the suggested use of this reagent is 0.25 - 1.0 µg/mL. For immunohistochemistry on formalin-fixed paraffin-embedded tissue sections, a concentration range of 1.0 - 10.0 µg/mL is suggested. For immunocytochemistry, a concentration range of 2.5 - 5.0 µg/mL is recommended. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	For ICC, we recommend 4% PFA fixation followed by permeabilization with ice cold methanol. We do not recommend 4% PFA fixation followed by permeabilization with 0.5% Triton-X, or fixation/permeabilization with ice cold methanol alone.
RRID	AB_2910477 (BioLegend Cat. No. 602651) AB_2910477 (BioLegend Cat. No. 602652)

Antigen Details

Structure	MAPK14 is a 360 amino-acid protein with a predicted molecular weight of 41 kD.
Distribution	MAPK14 is widely expressed in the cytoplasm and nucleus of most tissues.
Function	MAPK14 is a serine/threonine kinase.
Interaction	MAPK14 phosphorylates myriad targets including transcription factors, other kinases, enzymes, and histone proteins.

Biology Area Signal Transduction
Molecular Family Protein Kinases/Phosphatase
Antigen References

1. Canovas B, Nebreda A. 2021. *Nat Rev Mol Cell Biol.* 22:346-366.

Gene ID [1432](#)

Related Protocols

[Immunocytochemistry Staining Protocol](#)

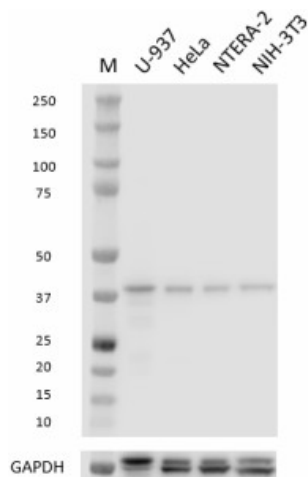
[Western Blotting Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

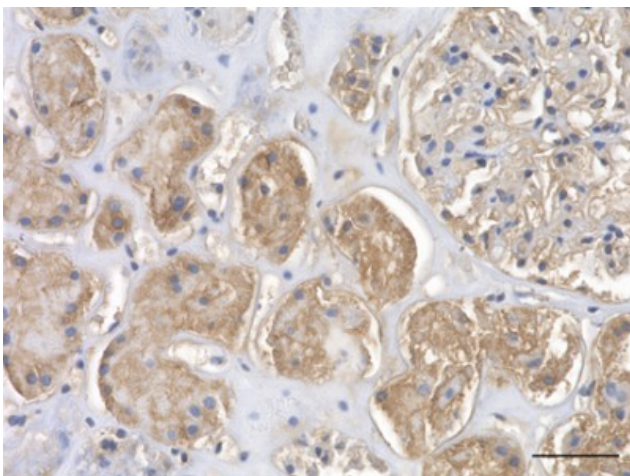
Other Formats

Purified anti-MAPK14

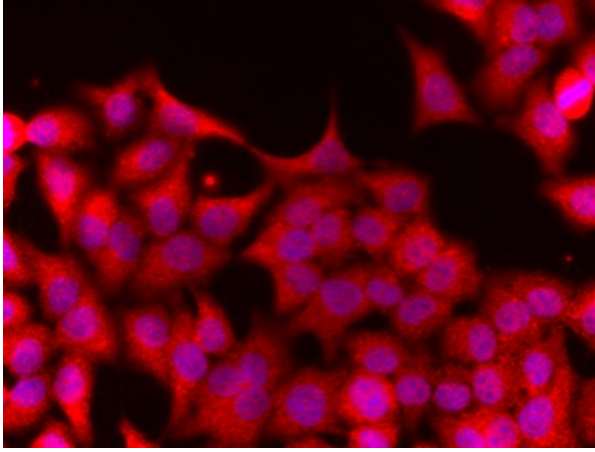
Product Data



Whole cell extracts (15 μ g total protein) from the indicated cell lines were resolved on a 4-12% Bis-Tris gel, transferred to a PVDF membrane, and probed with 1.0 μ g/mL (1:500 dilution) of purified anti-MAPK14 (clone 5A1-C5-F11) overnight at 4°C. Proteins were visualized by chemiluminescence detection using HRP Goat anti-mouse IgG (Cat. No. 405306) at a 1:3000 dilution. Direct-Blot™ HRP anti-GAPDH (Cat. No. 607903) was used as a loading control at a 1:25000 dilution (lower). Western-Ready™ ECL Substrate Plus Kit (Cat. No. 426317) was used as a detection agent. Lane M: Molecular weight marker



IHC staining of anti-MAPK14 (5A1-C5-F11) on formalin-fixed paraffin-embedded human kidney tissue. Following antigen retrieval using Sodium Citrate H.I.E.R. (Cat. No. 928502), the tissue was incubated with 5.0 μ g/mL of the primary antibody overnight at 4°C. BioLegend's Ultra Streptavidin HRP Kit (Multi-Species, DAB) (Cat. No. 929501) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 μ m



ICC staining of purified anti-MAPK14 (clone 5A1-C5-F11) on HeLa cells. The cells were fixed and with 4% paraformaldehyde (Cat. No. 420801), permeabilized with ice-cold methanol, and blocked with 5% FBS for 1 hour at room temperature. The cells were then stained with 5.0 $\mu\text{g}/\text{mL}$ of the primary antibody, followed by incubation with 2.5 $\mu\text{g}/\text{mL}$ of Alexa Fluor® 647 Goat anti-mouse IgG (Cat. No. 405322) for 1 hour at room temperature. Nuclei were counterstained with DAPI, and the image was captured with a 60X objective.

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