[KD Validated] Anti-MAPK1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R020882

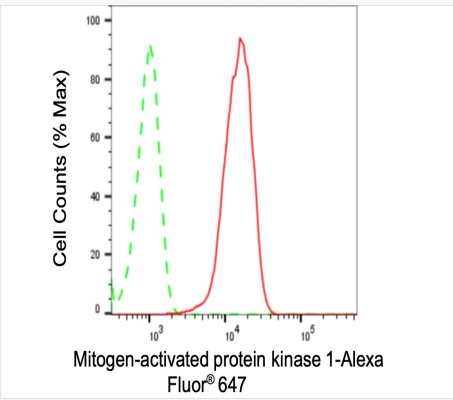
Product Information

Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	22D17E75
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human ERK2
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-MAPK1 Rabbit mAb [22D17E75] is for research use only and not for use in diagnostic or therapeutic procedures.

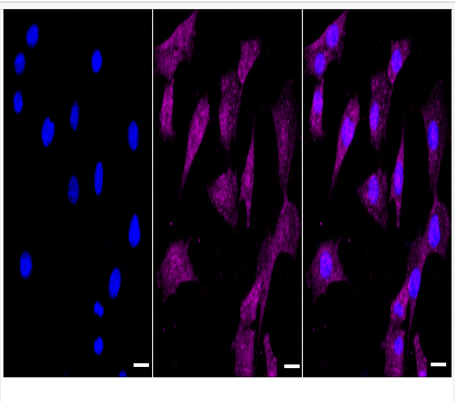
Protein Information

Synonyms	MAPK1; Mitogen-Activated Protein Kinase 1; ERK2; Extracellular Signal Regulated Kinase 2; P41mapk; MAPK; PRKM1; PRKM2; ERK; Mitogen-Activated Protein Kinase 2; MAP Kinase 1; MAP Kinase 2; EC 2.7.11.24; P42-MAPK; MAPK 2; ERK-2; ERT1; Protein Tyrosine Kinase ERK2; MAP Kinase Isoform P42; EC 2.7.11; P42MAPK; MAPK 1; NS13; P38; P40; P41.
Calculated MW	Calculated MW: 41 kDa, Observed MW: 41 kDa
Uniprot ID	P28482
Gene ID	5594
Background	Act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. The activation of ERK2 requires its phosphorylation by upstream kinases. ERK2 is located in the cytoplasm of resting cells and translocates into the nucleus upon extracellular stimuli by active transport of a dimer. ERK2 is essential for placental development and ERK2 in the trophoblast compartment may be indispensable for the vascularization of the labyrinth.

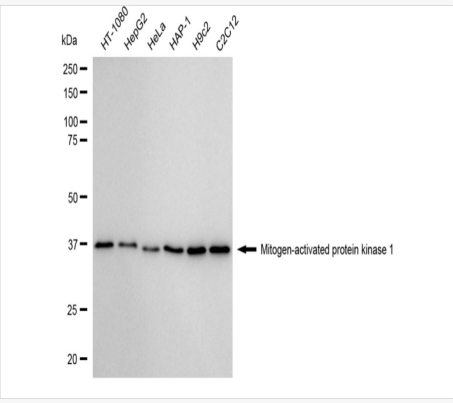
Validation Images



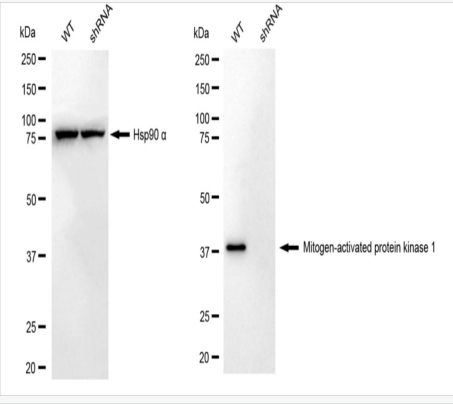
Flow cytometric analysis of Mitogen-activated protein kinase 1 expression in C2C12 cells using Mitogen-activated protein kinase 1 antibody (R020882, 1:2,000). Green, isotype control; red, Mitogen-activated protein kinase 1.



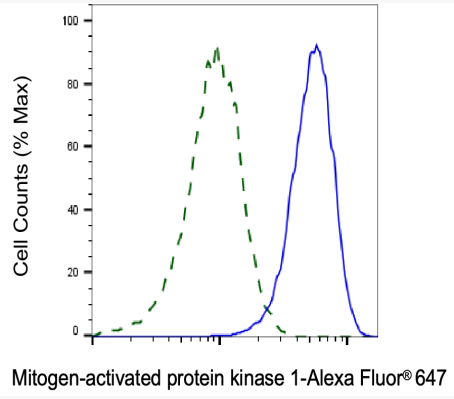
Immunocytochemical staining of C2C12 cells with Mitogen-activated protein kinase 1 antibody (R020882, 1:1,000) . Nuclei were stained blue with DAPI; Mitogen-activated protein kinase 1 was stained magenta with Alexa Fluor® 647. Images were taken using leica stellaris 5. Protein abundance based on laser intensity and smart gain: Medium. Scale bar: 20 µm.



Western blotting analysis using Mitogen-activated protein kinase 1 antibody (R020882). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Mitogen-activated protein kinase 1 antibody (R020882, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using mitogen-activated protein kinase 1 antibody (R020882). Mitogen-activated protein kinase 1 expression in wild-type (WT) and mitogen-activated protein kinase 1 (MAPK1) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with mitogen-activated protein kinase 1 antibody (R020882, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Validation of Mitogen-activated protein kinase 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Mitogen-activated protein kinase 1 antibody (R020882, 1:2,000) and analyzed using BD flow cytometer.