

[KD Validated] Anti-MAPK1/3 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

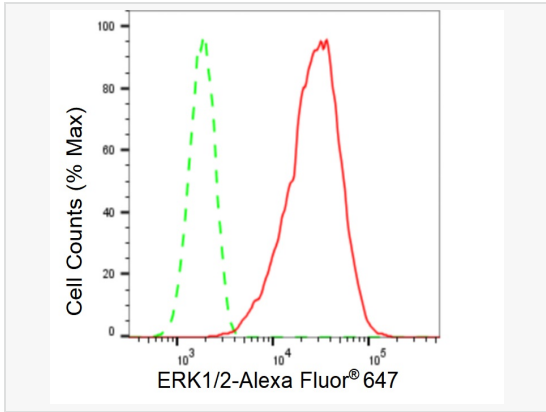
Catalog # R021299

Product Information

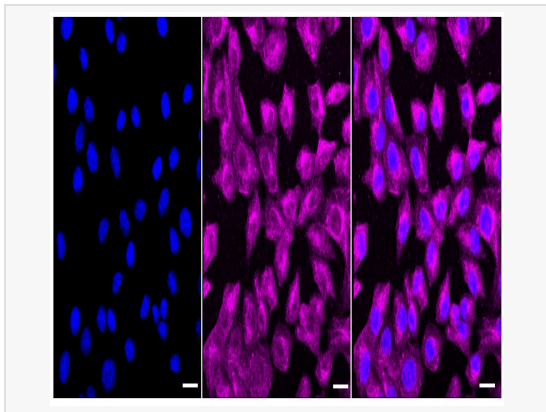
Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	43S59O21
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human ERK1/2
Format	Affinity purified monoclonal 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-MAPK1/3 Rabbit mAb [43S59O21] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

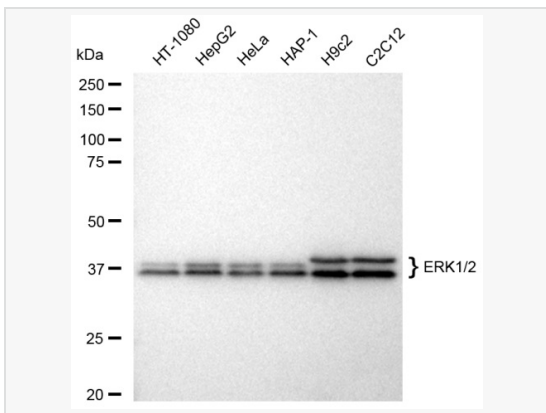
Synonyms	MAPK3; Mitogen-Activated Protein Kinase 3; ERK1; PRKM3; Extracellular Signal-Regulated Kinase 1; Microtubule-Associated Protein 2 Kinase; Insulin-Stimulated MAP2 Kinase; EC 2.7.11.24; P44-ERK1; P44-MAPK; P44ERK1; P44MAPK; ERK-1; ERT2; Extracellular Signal-Related Kinase 1; MAP Kinase Isoform P44; MAP Kinase; EC 2.7.11; HS44KDAP; HUMKER1A; P44mapk; P44erk1; MAPK 1; MAPK 3; MAPK1; Mitogen-Activated Protein Kinase 1; ERK2; Extracellular Signal-Regulated Kinase 2; MAPK2; PRKM1; PRKM2; ERK; Mitogen-Activated Protein Kinase 2; MAP Kinase 1; MAP Kinase 2; EC 2.7.11.24; P42-MAPK; P41mapk; MAPK; ERK-2; ERT1; Protein Tyrosine Kinase; ERK2; MAP Kinase Isoform P42; EC 2.7.11; P42MAPK; P41MAPK; MAPK 1; NS13; P38; P40; P41.
Calculated MW	Calculated MW: 43,41 kDa, Observed MW: 42,44 kDa
Uniprot ID	P27361, P28482
Gene ID	5595,5594
Background	Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK1/ERK2 and MAPK3/ERK1 are the 2 MAPKs which play an important role in the MAPK/ERK cascade. They participate also in a signaling cascade initiated by activated KIT and KITLG/SCF. Depending on the cellular context, the MAPK/ERK cascade mediates diverse biological functions such as cell growth, adhesion, survival and differentiation through the regulation of transcription, translation, cytoskeletal rearrangements.



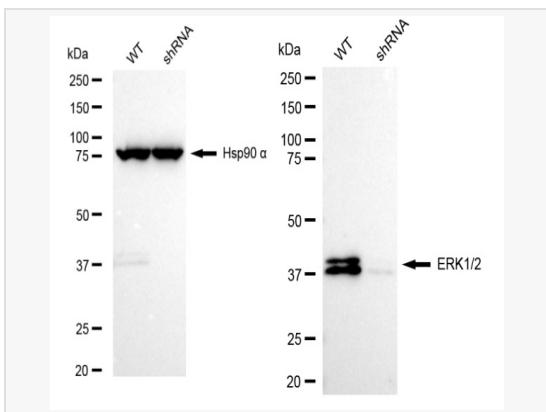
Flow cytometric analysis of ERK1/2 expression in C2C12 cells using ERK1/2 antibody (R021299, 1:2,000). Green, isotype control; red, ERK1/2.



Immunocytochemical staining of C2C12 cells with ERK1/2 antibody (R021299, 1:1,000). Nuclei were stained blue with DAPI; ERK1/2 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 ERK1/2 antibody (R021299). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with ERK1/2 antibody (R021299, 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 ERK1/2 antibody (R021299). ERK1/2 expression in wild type (WT) and ERK1/2 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with ERK1/2 antibody (R021299, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.