[KD Validated] Anti-MAPK3 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021583

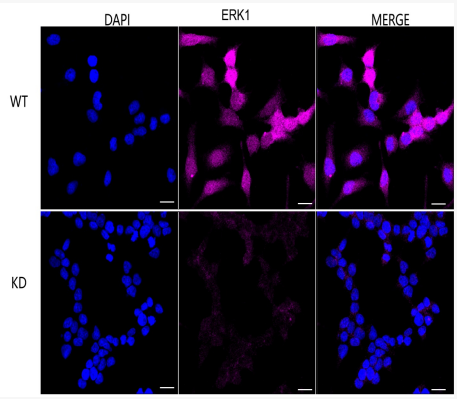
Product Information

Application	WB, FC, IF (Cell)/ICC
Reactivity	Human
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.	57G78G38
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human ERK1
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-MAPK3 Rabbit mAb [57G78G38] is for research use only and not for use in diagnostic or therapeutic procedures.

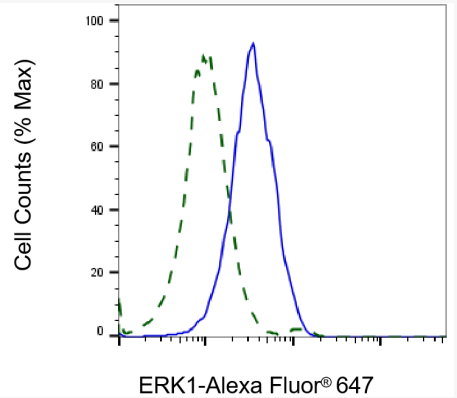
Protein Information

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 3; EC 2.7.11; HS44KDAP; HUMKER1A; P44mapk; P44erk1; MAPK 1; MAPK.
Calculated MW	Calculated MW: 43 kDa, Observed MW: 40 kDa
Uniprot ID	P27361
Gene ID	5595
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.

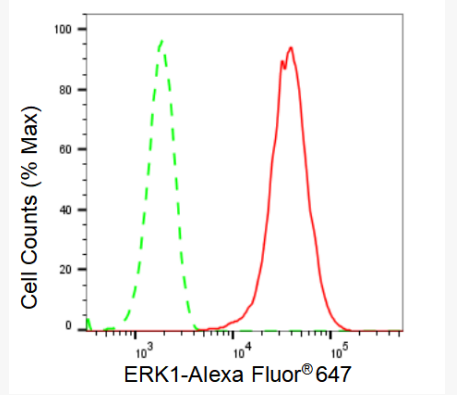
Validation Images



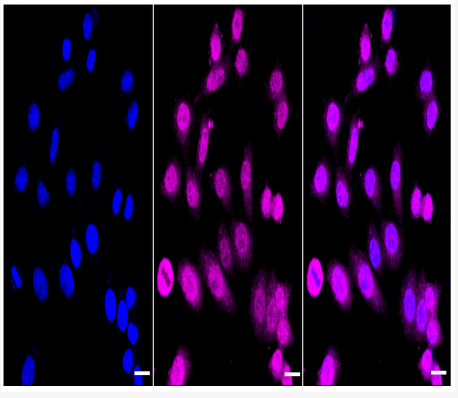
Immunocytochemical staining of HeLa cells using ERK1 antibody (R021583, 1:1,000), Top panel: wild-type (WT); Bottom panal: ERK1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; ERK1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



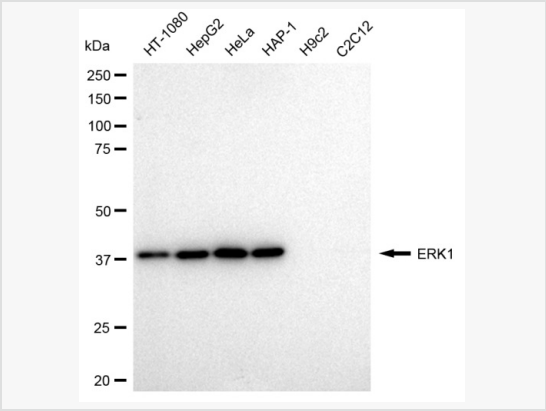
Validation of ERK1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with ERK1 antibody (R021583, 1:2,000) and analyzed using CytoFLEX.



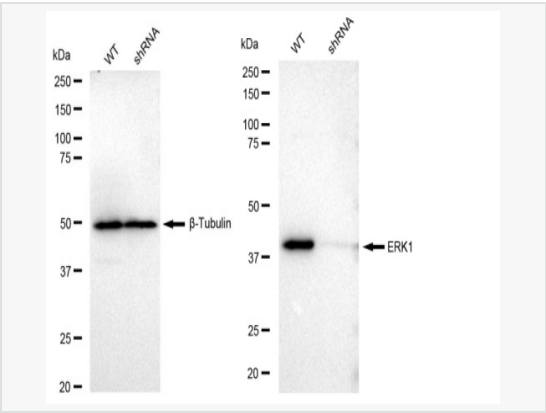
Flow cytometric analysis of ERK1 expression in HepG2 cells using ERK1 antibody (R021583, 1:2,000). Green, isotype control; red, ERK1.



Immunocytochemical staining of HepG2 cells with ERK1 antibody (R021583, 1:1,000). Nuclei were stained blue with DAPI; ERK1 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 antibody (R021583). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with ERK1 antibody (R021583, 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 antibody (R021583). ERK1 expression in wild type (WT) and ERK1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with ERK1 antibody (R021583, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.