

Product Name: KD-Validated ERK1/2 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA01225

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Predicted, 43,41 kDa, observed, 42,44 kDa

Antigen Information

Gene Name	MAPK1/3 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;
Alternative Names	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
Gene ID	5595,5594

SwissProt ID P27361, P28482
Immunogen A synthesized peptide derived from human ERK1/2

Background

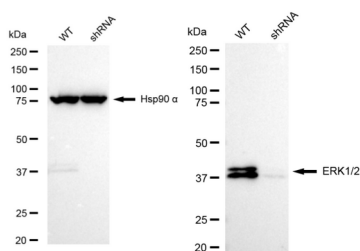
MAPK3: The protein encoded by this gene is a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act in a signaling cascade that regulates various cellular processes such as proliferation, differentiation, and cell cycle progression in response to a variety of extracellular signals. This kinase is activated by upstream kinases, resulting in its translocation to the nucleus where it phosphorylates nuclear targets. Alternatively spliced transcript variants encoding different protein isoforms have been described. [provided by RefSeq, Jul 2008]

MAPK1: This gene encodes a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), 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 this kinase requires its phosphorylation by upstream kinases. Upon activation, this kinase translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets. One study also suggests that this protein acts as a transcriptional repressor independent of its kinase activity. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Two alternatively spliced transcript variants encoding the same protein, but differing in the UTRs, have been reported for this gene. [provided by RefSeq, Jan 2014]

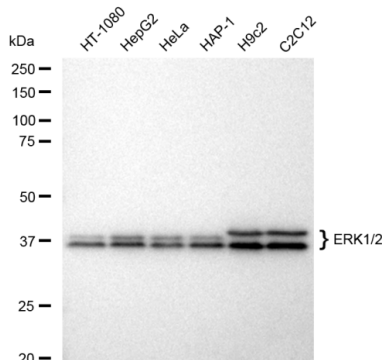
Research Area

Cell Biology, Signal Transduction, Cancer, Immunology, Kits/ Lysates/ Other

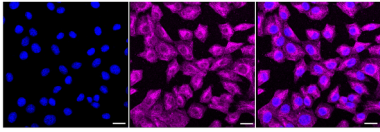
Image Data



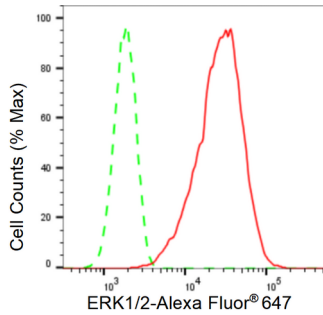
Western blotting analysis using ERK1/2 antibody (KVA01225). ERK1/2 expression in wild type (WT) and ERK1/2 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with ERK1/2 antibody (KVA01225, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using ERK1/2 antibody (KVA01225). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with ERK1/2 antibody (KVA01225, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of C2C12 cells with ERK1/2 antibody (KVA01225, 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 μ m.



Flow cytometric analysis of ERK1/2 expression in C2C12 cells using ERK1/2 antibody (KVA01225, 1:2,000). Green, isotype control; red, ERK1/2.