Product Datasheet

ERK1/2 Rabbit mAb

Catalog No: #48616

Package Size: #48616-1 50ul #48616-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	ERK1/2 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	SA43-03
Purification	ProA affinity purified
Applications	WB, ICC/IF, IP, FC
Species Reactivity	Human;Mouse;Rat;Zebrafish
Immunogen Description	recombinant protein
Conjugates	Unconjugated
Other Names	ERK 1 antibody ERK 2 antibody ERK-2 antibody ERK1 antibody erk1/2 antibody ERK2 antibody ERT1 antibody ERT2 antibody Extracellular signal regulated kinase 1 antibody Extracellular signal-regulated kinase 2 antibody MAP kinase 1 antibody MAP kinase 2 antibody MAP kinase isoform p42 antibody MAP kinase isoform p44 antibody MAPK 1 antibody MAPK 2 antibody MAPK 3 antibody Mapk1 antibody MAPK2 antibody MAPK3 antibody Mitogen-activated protein kinase 1 antibody Mitogen-activated protein kinase 2 antibody MK01_HUMAN antibody p38 antibody p40 antibody p41 antibody p42-MAPK antibody PRKM 2 antibody
Accession No.	Swiss-Prot#:P27361
Calculated MW	42/44 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

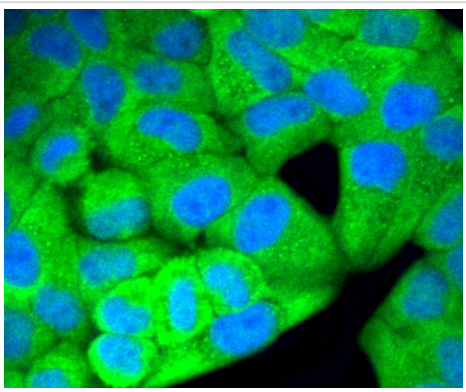
Application Details

WB: 1:1,000-5,000

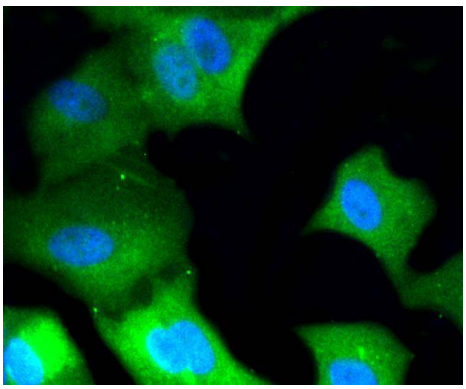
ICC: 1:50-1:200

FC: 1:50-1:100

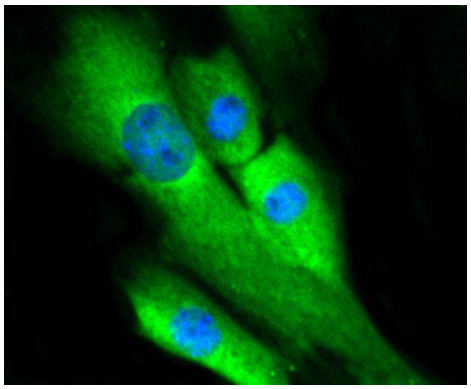
Images



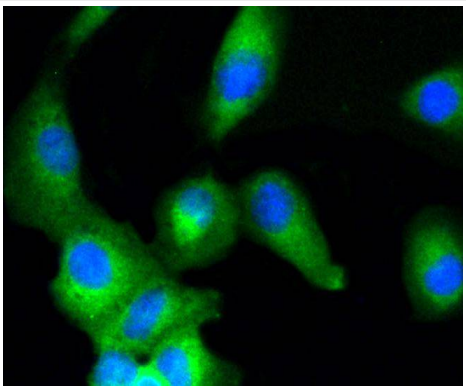
ICC staining ERK1/2 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



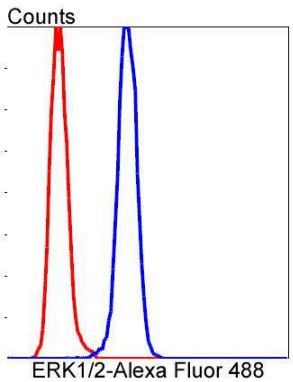
ICC staining ERK1/2 in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



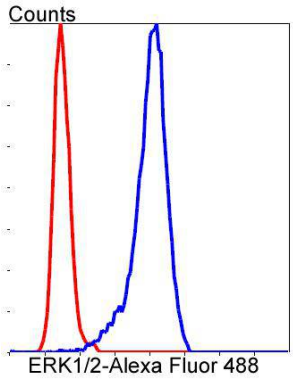
ICC staining ERK1/2 in NIH/3T3 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



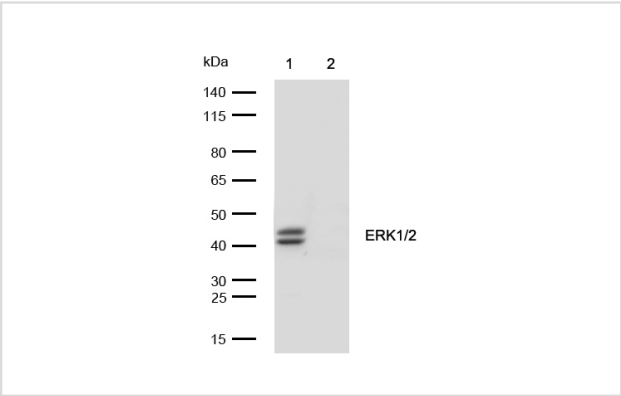
ICC staining ERK1/2 in A549 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of Hela cells with ERK1/2 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.



Flow cytometric analysis of SH-SY-5Y cells with ERK1/2 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.



All lanes:ERK1/2 Rabbit mAb at 1/1k dilutionLane 1 : Wild-type Hela cell lysateLane 2 : ERK1/2 knockdown Hela cell lysateLysates/proteins at 20 µg per lane.

Background

Mitogen-activated protein kinase (MAPK) signaling pathways involve two closely related MAP kinases, known as extracellular-signal-related kinase 1 (ERK 1, p44) and 2 (ERK 2, p42). Growth factors, steroid hormones, G protein-coupled receptor ligands and neurotransmitters can initiate MAPK signaling pathways. Activation of ERK 1 and ERK 2 requires phosphorylation by upstream kinases such as MAP kinasekinase (MEK), MEK kinase and Raf-1. ERK 1 and ERK 2 phosphorylation can occur at specific tyrosine and threonine sites mapping within consensus motifs that include the threonine-glutamate-tyrosine motif. ERK activation leads to dimerization with other ERKs and subsequent localization to the nucleus. Active ERK dimers phosphorylate serine and threonine residues on nuclear proteins and influence a host of responses that include proliferation, differentiation, transcription regulation and development. The human ERK 1 gene maps to chromosome 16p11.2 and encodes a 379 amino acid protein that shares 83% sequence identity to ERK 2. The human ERK2 gene maps to chromosome 22q11.21 and encodes a 360-amino acid protein.

References

1. Ye, Q. et al. 2014. Lactoferrin deficiency promotes colitis-associated colorectal dysplasia in mice. PloS one. 9: e103298.
2. Polidoro, L. et al. 2013. Vitamin D protects human endothelial cells from H?O? oxidant injury through the Mek/Erk-Sirt1 axis activation. Journal of cardiovascular translational research. 6: 221-31.

Published Papers

el at., Apoptosis-inducing activity of synthetic hydrocarbon-stapled peptides in H358 cancer cells expressing KRASG12C. In Acta Pharm Sin B on 2021 Sep by Cuicui Li, Ni Zhao,et al..PMID:34589388, , (2021)

PMID:34589388

Qu Chen;Lingyan Ma;Yang Wen;Wentao Lyu;Minjie Yu;Hua Yang;Yingping Xiao el at., The Effect of Clostridium butyricum-Derived Lipoteichoic Acid on Lipopolysaccharide-Stimulated Porcine Intestinal Epithelial Cells., , (2025)

PMID:39749788

Note: This product is for in vitro research use only and is not intended for use in humans or animals.