

Mouse ERK1 Monoclonal Antibody | anti-ERK1 antibody

ERK1 (C-terminal region) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA71625	Mouse	Human, Rat, Mouse	Immunohistochemistry, Immunocytochemistry, ELISA, Western Blot

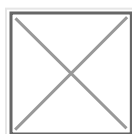
PRODUCT SYNONYMS

ERK1; Monoclonal Antibody; ERK1 (C-terminal region) Antibody; ERK1 (C-terminal region); anti-ERK1 antibody

PRODUCT SPECIFICATIONS

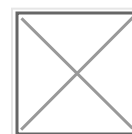
Host	Mouse
Reactivity	Human, Rat, Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Number	M233
Specificity	The antibody detects a 44kDa* protein corresponding to ERK1 on SDS-PAGE immunoblots of human A431 epithelial cells. It does not detect ERK2.
Purity/Purification	Protein A chromatography
Form/Format	Mouse monoclonal antibody purified with protein A chromatography is supplied in 100ul phosphate-buffered saline, 50% glycerol, 1mg/ml BSA, and 0.05% sodium azide.
Applicable Applications for anti-ERK1 antibody	IHC (Immunohistochemistry), ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Immunogen	Clone (M233) was generated from a recombinant human ERK1 protein that included amino acids residues in the C-terminal region. This sequence is conserved in rat and mouse ERK1, and has low homology to ERK2, as well as other ERK family members.
Preparation and Storage	Store at -20 degree C. Stable for 1 year.

IMAGES



ICC (Immunocytochemistry)

Immunocytochemical labeling of ERK1 in paraformaldehyde-fixed and NP-40-permeabilized rabbit spleen fibroblasts. The cells were labeled with mouse monoclonal ERK1 (C-terminal region) and detected using appropriate secondary antibodies conjugated to Cy3.



WB (Western Blot)

Western blot analysis of human A431 epithelial cells untreated (lanes 1 & 4) or treated with 100nM calyculin A for 30 min. (lanes 2 & 5) or 100 ng/ml EGF for 60 min. (lanes 3 & 6). The blots were probed with anti-ERK1 (C-terminal region) (lanes 1, 2, & 3) or anti-ERK1/2 (Thr-202/Tyr-204) (lanes 4, 5, & 6).

ADDITIONAL INFORMATION

Related Product Information for anti-ERK1 antibody	Mitogen-activated protein kinases (MAPKs) are a widely conserved family of serine/threonine protein kinases involved in many cellular programs such as cell proliferation, differentiation, motility, and death. The ERK1/2 (p44/42) signaling pathway can be activated in response to a diverse range of extracellular stimuli including mitogens, growth factors, and cytokines. Upon stimulation, a sequential three-part protein kinase cascade is initiated, consisting of a MAP kinase kinase kinase (MAPKKK), a MAP kinase kinase (MAPKK), and a MAP kinase (MAPK). Multiple ERK1/2 MAPKKs have been identified, including members of the Raf family as well as Mos and Tpl2/Cot. MEK1 and MEK2 are the primary MAPKKs in this pathway. MEK1 and MEK2 activate ERK1 and ERK2 through phosphorylation of activation loop residues Thr-202/Tyr-204 and Thr-185/Tyr-187, respectively. ERK1/2 are negatively regulated by a family of dual-specificity (Thr/Tyr) MAPK phosphatases. Several downstream targets of ERK1/2 have been identified, including p90RSK and the transcription factor Elk-1.
References	Owens, D.M. & Keyse, S.M. (2007) Oncogene 26:3203. Murphy, L.O. & Blenis, J. (2006) Trends Biochem Sci 31:268. Roux, P.P. & Blenis, J. (2004) Microbiol Mol Biol Rev 68:320.

NCBI AND UNIPROT INFORMATION

NCBI GI #	91718897
NCBI GeneID	5595
NCBI Accession #	NP_001035145.1
NCBI GenBank Nucleotide #	NM_001040056.2
UniProt Accession #	P27361; Q8NHX1; A8CZ58; B0LPG3
Molecular Weight	43,136 Da
NCBI Official Full Name	mitogen-activated protein kinase 3 isoform 2
NCBI Official Synonym Full Names	mitogen-activated protein kinase 3
NCBI Official Symbol	MAPK3
NCBI Official Synonym Symbols	ERK1; ERT2; ERK-1; PRKM3; P44ERK1; P44MAPK; HS44KDAP; HUMKER1A; p44-ERK1; p44-MAPK
NCBI Protein Information	mitogen-activated protein kinase 3; MAPK 1; MAP kinase isoform p44; insulin-stimulated MAP2 kinase; extracellular signal-related kinase 1; extracellular signal-regulated kinase 1; microtubule-associated protein 2 kinase
UniProt Protein Name	Mitogen-activated protein kinase 3
UniProt Gene Name	MAPK3
UniProt Synonym Gene Names	ERK1; PRKM3; MAP kinase 3; MAPK 3; ERK-1; p44-MAPK
UniProt Entry Name	MK03_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.