

Rabbit ERK2 Polyclonal Antibody | anti-ERK2 antibody

ERK2 (a.a.181-195) [conserved site] Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA71633	Rabbit	Human, Rat, Mouse, Chicken, Fish	Immunocytochemistry, ELISA, Western Blot

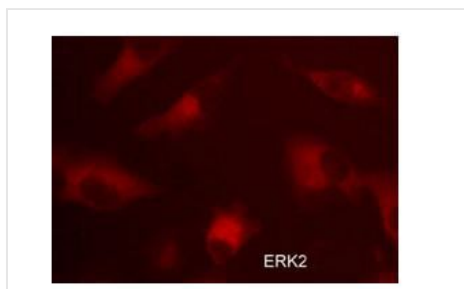
PRODUCT SYNONYMS

ERK2; Polyclonal Antibody; ERK2 (a.a.181-195) [conserved site] Antibody; ERK2 (a.a.181-195) [conserved site]; ERK2 181; anti-ERK2 antibody

PRODUCT SPECIFICATIONS

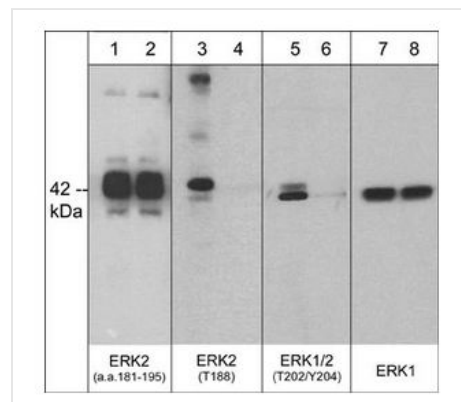
Host	Rabbit
Reactivity	Human, Rat, Mouse, Chicken, Fish
Clonality	Polyclonal
Specificity	The antibody detects 42 and 44kDa* proteins corresponding to ERK1 and ERK2 on SDS-PAGE immunoblots of human A431 epithelial cells.
Form/Format	Rabbit polyclonal, affinity-purified antibody is supplied in 100ul phosphate-buffered saline, 50% glycerol, 1mg/ml BSA, and 0.05% sodium azide.
Applicable Applications for anti-ERK2 antibody	ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Immunogen	ERK2 synthetic peptide (coupled to carrier protein) corresponds to amino acids 181 to 195 from mouse ERK2. This sequence is conserved in human, rat, chicken, and fish ERK2, and is highly conserved in other ERK family members, ERK1, ERK5, and ERK7.
Preparation and Storage	Store at -20 degree C. Stable for 1 year.

IMAGES



ICC (Immunocytochemistry)

Immunocytochemical labeling of ERK2 in aldehyde-fixed and NP-40 permeabilized human NCI-H1915 lung carcinoma cells. The cells were labeled with rabbit polyclonal anti-ERK2 (EP4071) antibody. The antibody was detected using appropriate secondary antibody conjugated to DyLight 594.



WB (Western Blot)

Western blot analysis of human A431 epithelial cells treated with 100nM calyculin A for 30 min. (lanes 1, 3, 5, & 7) then the blot was treated with lambda phosphatase (lanes 2, 4, 6, & 8). The blots were probed with polyclonal anti-ERK2 (a.a. 181-195) (lanes 1 & 2), anti-ERK2 (Thr-188) (lanes 3 & 4), anti-ERK1/2 (Thr-202/Tyr-204) (lanes 5 & 6), or monoclonal anti-ERK1 (C-terminal region) (lanes 7 & 8).

ADDITIONAL INFORMATION

Related Product Information for anti-ERK2 antibody	The ERK1/2 (p44/42) MAPK 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 MAP kinase cascade is initiated, consisting of a MAP kinase kinase kinase (MAPKKK), a MAP kinase kinase (MAPKK), and a MAP kinase (MAPK). Activation of the MAPKs, ERK1 and ERK2, leads to phosphorylation of activation loop residues Thr-202/Tyr-204 and Thr-185/Tyr-187, respectively. In addition to dual phosphorylation, ERK1 and 2 are autophosphorylated on Thr-207 or Thr-188, respectively. This phosphorylation is required for nuclear translocation of ERK, and leads to phosphorylation of several nuclear proteins involved in cardiac hypertrophy. Mouse models with mutation of Thr-188 in ERK2 show that this site is critical for ERK-mediated cardiac hypertrophy. Thus, phosphorylation of Thr-188 in ERK2 may be important for controlling the nuclear functions of activated ERK1 and ERK2.
References	Lorenz, K. et al. (2009) Nat Med. 15(1):75. 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 #	84579909
NCBI GeneID	26413
NCBI Accession #	NP_001033752.1
NCBI GenBank Nucleotide #	NM_001038663.1
UniProt Accession #	P63085; P27703; Q3V1U6
Molecular Weight	41,276 Da
NCBI Official Full Name	mitogen-activated protein kinase 1
NCBI Official Synonym Full Names	mitogen-activated protein kinase 1
NCBI Official Symbol	Mapk1
NCBI Official Synonym Symbols	ERK; Erk2; MAPK2; PRKM2; Prkm1; C78273; p41mapk; p42mapk; AA407128; AU018647; 9030612K14Rik
NCBI Protein Information	mitogen-activated protein kinase 1; ERT1; ERK-2; MAPK 1; MAPK 2; p42-MAPK; MAP kinase 1; MAP kinase 2; MAP kinase isoform p42; mitogen activated protein kinase 1; mitogen-activated protein kinase 2; extracellular signal-regulated kinase 2
UniProt Protein Name	Mitogen-activated protein kinase 1
UniProt Gene Name	Mapk1
UniProt Synonym Gene Names	Erk2; Mapk; Prkm1; MAP kinase 1; MAPK 1; ERK-2; p42-MAPK; MAP kinase 2; MAPK 2
UniProt Entry Name	MK01_MOUSE

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.