

Product datasheet for **AP09076SU-N**

ERK2 (MAPK1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IP, WB
Recommended Dilution:	ELISA: 1/2000 to 1/10000. Western Blot: 1/1000-1/2000. Immunoprecipitation: 5.0 µg/mg sample.
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	This whole rabbit antiserum was prepared by repeated immunizations with a GST fusion protein. The epitope maps near the carboxy-terminus of human p42 MAP Kinase (ERK2) protein. The epitope is identical to the corresponding sequence in mouse and differs from the rat sequence by a single, conservative amino acid substitution.
Specificity:	This antibody reacts to p42 MAP Kinase (ERK2) protein. No reactivity is observed against p44 MAP Kinase (ERK1). Cross reactivity is expected with p44 MAP Kinase (ERK1) proteins from human and mouse sources.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 containing 0.01% (w/v) Sodium Azide as preservative State: Serum State: Liquid (sterile filtered)
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	mitogen-activated protein kinase 1
Database Link:	Entrez Gene 5594 Human P28482



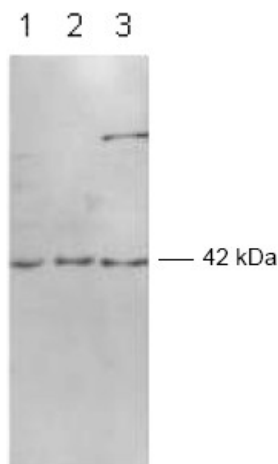
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Background:

Cell proliferation is regulated in several contexts, for example during development, tissue differentiation, wound healing and immune responses. In mammalian cells, proliferative signals lead to the activation of a protein kinase cascade, resulting in the phosphorylation of two closely related Mitogen-Activated Protein Kinases (MAPK's) ERK1 and ERK2 of 44 kDa and 42 kDa, respectively. When activated, ERK's form dimers that translocate to the nucleus where they phosphorylate several classes of transcription factors which are involved in the upregulation of immediate early genes. As such, ERK1 and ERK2 represent a paradigm for a growing family of proline-directed protein kinases that mediate entry, progression and exit from the cell cycle in diverse eukaryotic cells. These enzymes function within highly conserved cascade of sequentially activating protein kinases that transduce signals from diverse extracellular stimuli. Alternative splice transcript variants encoding different protein isoforms have been described. ERK1 and ERK2 are phosphorylated within the activation loop on both a Threonine and a Tyrosine residue (within a Thr-Glu-Tyr motif) by MEKs (MAPK/ERK kinases), thereby greatly elevating the activity of ERK1&2. In vertebrates the mitogeninduced sequential activation of the kinases Raf1->Mek1->Erk2->Rsk occurs via the G-protein Ras.

Synonyms:

Mitogen-activated protein kinase 1, p42-MAPK, ERT1, PRKM1, PRKM2, MAP kinase 2, MAPK2, MAPK1

Product images:

Western blot using anti-p42 MAP Kinase (ERK2) antibody shows detection of ERK2 in several whole cell lysates: HeLa (lane 1), A431 (lane 2), and NIH3T3 (lane 3). Detection occurs using a 1:1,000 dilution of the primary antibody followed by 1:4,000 dilution of HRP Goat-a-Rabbit with visualization via ECL.