

Product datasheet for **TA326570**

Mapk3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:5000, IHC: 1:50, Flow: 10ug/ml
Reactivity:	Human, Mouse, Rat, Sheep, Chicken, Drosophila, Xenopus, Cow
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A 35 residue synthetic peptide, corresponding to Erk1 MAP kinase with the CGG spacer group added and the peptide coupled to KLH.
Formulation:	Rabbit antiserum
Concentration:	lot specific
Purification:	Rabbit antiserum
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	mitogen activated protein kinase 3
Database Link:	NP_059043 Entrez Gene 5595 Human Entrez Gene 26417 Mouse Entrez Gene 50689 Rat P21708



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Background:

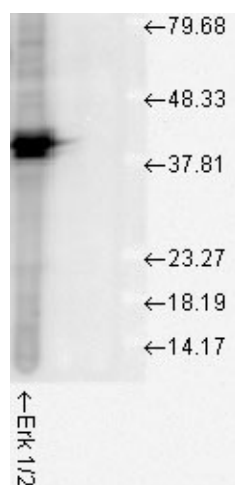
The extracellular signal-regulated kinases 1 and 2 (ERK1 and ERK2), also called p44 and p42 MAP kinases, are members of the Mitogen Activated Protein Kinase (MAPK) family of proteins found in all eukaryotes. Because the 44 kDa ERK1 and the 42 kDa ERK2 are highly homologous and both function in the same protein kinase cascade, the two proteins are often referred to collectively as ERK1/2 or p44/p42 MAP kinase. They are both located in the cytosol and mitochondria. While the role of cytosol ERK1/2 is well studied and involved in multiple cellular functions, the role of mitochondrial ERK1/2 remains poorly understood. Both ERK 1 and 2 are activated by MEK1 or MEK2, by dual phosphorylation of a threonine and tyrosine residue in the activation loop (TEY motif). Either phosphorylation alone can induce an electrophoretic mobility shift, but both are required for activation of the kinase. This dual phosphorylation is efficiently detected by phosphorylation state-specific antibody directed to the pTEpY motif. Once activated, MAP kinases phosphorylate a broad spectrum of substrates, including cytoskeletal proteins, translation regulators, transcription factors, and the Rsk family of protein kinases. ERK1/2 activation is generally thought to confer a survival advantage to cells; however there is increasing evidence that suggests that the activation of ERK1/2 also contributes to cell death under certain conditions. ERK1/2 also is activated in neuronal and renal epithelial cells upon exposure to oxidative stress and toxicants or deprivation of growth factors, and inhibition of the ERK pathway blocks apoptosis.

Synonyms:

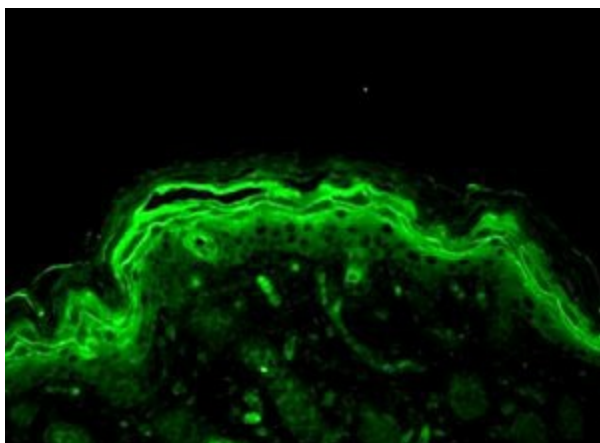
ERK-1; ERK1; ERT2; HS44KDAP; HUMKER1A; MGC20180; OTTHUMP00000174538; p44-ERK1; p44-MAPK; P44ERK1; p44mapk; PRKM3

Note:

Detects ~44kda and ~42kDa bands corresponding to the molecular weights of Erk1 and Erk2.

Product images:

Western blot analysis of ERK1/2 in a human cell line mix, using a 1:1000 dilution of the antibody



ERK1/2 visualized using the antibody