

p44/42 MAPK (Erk1/2) Ab

Cat.#: BF0412
Size: 50ul,100ul,200ul

Concn.: 1mg/ml
Source: Mouse

Mol.Wt.: 42kDa
Clonality: Monoclonal

Application: ELISA 1/10000, WB 1/500 - 1/2000, IHC 1/200 - 1/1000, FCM 1/200 - 1/400

Reactivity: Human, Mouse

Purification: Affinity-chromatography.

Specificity: p44/42 MAPK (Erk1/2) Ab detects endogenous levels of total p44/42 MAPK (Erk1/2).

Immunogen: Purified recombinant fragment of human p44/42 MAPK (Erk1/2) expressed in E. Coli.

Uniprot: P27361/P28482

Description: 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 p44/42 MAPK (Erk1/2) signaling pathway can be activated in response to a diverse range of extracellular stimuli including mitogens, growth factors, and cytokines and is an important target in the diagnosis and treatment of cancer. Upon stimulation, a sequential three-part protein kinase cascade is initiated, consisting of a MAP kinase kinase kinase (MAPKKK or MAP3K), a MAP kinase kinase (MAPKK or MAP2K), and a MAP kinase (MAPK). Multiple p44/42 MAP3Ks 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 p44 and p42 through phosphorylation of activation loop residues Thr202/Tyr204 and Thr185/Tyr187, respectively. Several downstream targets of p44/42 have been identified, including p90RSK and the transcription factor Elk-1. p44/42 are negatively regulated by a family of dual-specificity (Thr/Tyr) MAPK phosphatases, known as DUSPs or MKPs, along with MEK inhibitors such as U0126 and PD98059.

Subcellular Location: Nucleus.

Similarity: The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases. Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.

Storage Condition and Mouse IgG1 in phosphate buffered saline (without Mg²⁺ and

Buffer:

Ca²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at -20 °C. Stable for 12 months from date of receipt.

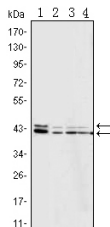
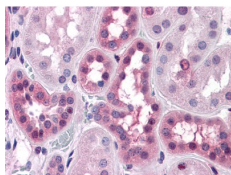


Figure 1: Western blot analysis using p44/42 MAPK mouse mAb against Jurkat (1), Hela (2), A431 (3) and NIH/3T3 (4) cell lysate.



Immunohistochemical analysis of paraffin-embedded human Liver tissues using anti-BHMT mouse mAb

IMPORTANT: For western blot, incubate membrane with diluted primary Ab in 5% w/v milk, 1X TBS, 0.1% Tween@20 at 4°C with gentle shaking, overnight.

For Research Use Only. Not for use in diagnostic and therapeutic procedures. Not for resale without express authorization.