

## p44/42 MAPK (Erk1/2) Monoclonal Antibody

### Description

<b>Product type</b>	Antibody
<b>Code</b>	BT-MCA2695
<b>Host</b>	Mouse
<b>Isotype</b>	Mouse IgG2b
<b>Size</b>	100µL, 50µL
<b>Immunogen</b>	Purified recombinant fragment of human MAPK expressed in E. Coli.
<b>Mol wt</b>	42kDa
<b>Species reactivity</b>	Human,Mouse
<b>Clonality</b>	Monoclonal
<b>Recommended application</b>	WB,IHC,FCM
<b>Concentration</b>	N/A
<b>Full name</b>	N/A
<b>Synonyms</b>	ERK;p38;p40;p41;ERK2;ERT1;MAPK2;PRKM1;PRKM2;P42MAPK;p41mapk;MAPK1

**This product is for research use only, not for use in human, therapeutic or diagnostic procedure.**

### Background

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.

### Recommended Dilution

WB: 1:500 - 1:2000

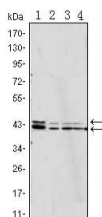
IHC-p: 1:200 - 1:1000

FCM: 1:200 - 1:400

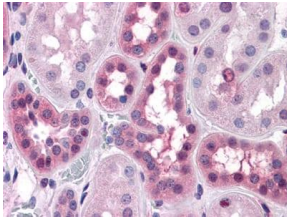
ELISA: 1:10000

Not yet tested in other applications.

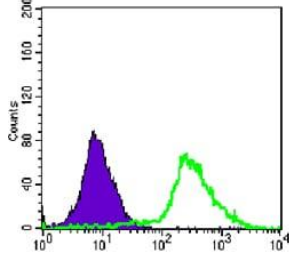
### Images



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



Flow cytometric analysis of Jurkat cells using p44/42 MAPK mAb (green) and negative control (purple).

### Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

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