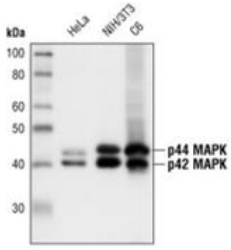
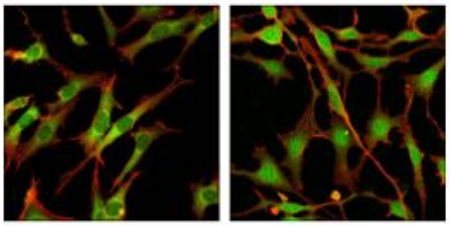
Product Data Sheet:
p44/p42 MAPK ERK1/ERK2

Cat. No:	MAB-94658
Conjugate:	Unconjugated
Size:	100 ug
Clone:	137F5
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human p44/42 MAPK.
Reactivity:	Hu, Ms, Rt
Applications:	Western Blotting 1:1000 Immunoprecipitation 1:50 Immunohistochemistry (Paraffin) 1:250 Immunofluorescence (Immunocytochemistry) 1:800 Flow Cytometry 1:400
Molecular Weight:	42,44kDa
Purification:	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the C-terminus of human p44 MAP kinase.
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 (1-3), and research investigators consider it an important target in the diagnosis and treatment of cancer (4). 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 o 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 (5,6). 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 (7) and the transcription factor Elk-1 (8,9). p44/42 are negatively regulated by a family of dual-specificity (Thr/Tyr) MAPK phosphatases, known as DUSPs or MKPs (10), along with MEK inhibitors, such as U0126 and PD98059.p44/42 MAP Kinase (137F5) Rabbit mAb detects endogenous levels of total p44/42 MAP kinase (Erk1/Erk2) protein. The antibody does not cross-react with JNK/SAPK or p38 MAP kinase.
Form:	Liquid
Buffer:	PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Storage:	Store at -20°C, and avoid repeat freeze-thaw cycles

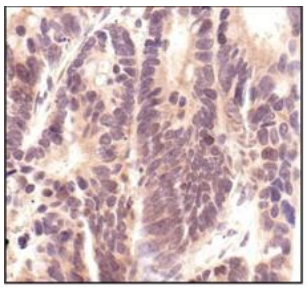
Product Data Sheet:
p44/p42 MAPK ERK1/ERK2



Western blot analysis of extracts from HeLa, NIH/3T3 and C6 cells, using p44/42 MAPK (Erk1/2) (137F5) Rabbit mAb.



Western blot analysis of extracts from HeLa, NIH/3T3 and C6 cells, using p44/42 MAPK (Erk1/2) (137F5) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using p44/42 MAPK (Erk1/2) (137F5) Rabbit mAb.