

**Cat. No:** MAB-94124

**Size:** 100 ug

**Clone:** 197G2

**Concentration:** 1mg/ml

**Host:** Rb

**Isotype:** IgG

**Reactivity:** Hu, Ms, Rt

**Applications:** Western blotting 1:1000 Immunoprecipitation 1:50 Immunohistochemistry (Frozen Tissues) Immunofluorescence(IF-ICC): 1:100

**Molecular Weight:** 42, 44 kDa

**Purification:** Aff. Pur

**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 is 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 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 (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/yr) MAPK phosphatases, known as DUSPs or MKPs (10), along with MEK inhibitors such as U0126 and PD98059. Specificity/Sensitivity:p44/42 MAP Kinase (197G2) 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. Source/Purification:Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the C-terminus of rat p44 MAP kinase.

**Form:** Liquid

**Buffer:** Supplied in 20 mM Tris HCl, (pH 8), 10 mg/ml BSA, 0.05% Sodium azide

**Storage:** Store at -20°C. Avoid Freeze and Thaw cycles.

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