

**Cat. No:** MAB-94370  
**Size:** 100 ug  
**Clone:** 20G11  
**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  
Antirabbit secondary antibodies must be used to detect this antibody

**Molecular Weight:** 42, 44 kDa

**Purification:** Aff. Pur

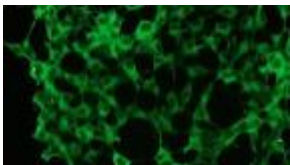
**Background:**

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 (20G11) 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

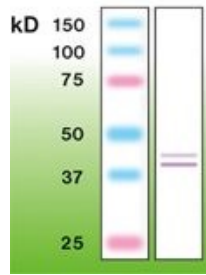
**Form:** Liquid

**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.



Immunofluorescence of Erk1,2  
expression  
in HEK293 cells, visualized with rabbit  
anti-Erk1,2  
Monoclonal Primary antibody dilution  
-1:100.



Western blot of Erk 1,2 in rat brain crude  
lysate (100µg of protein loaded).