Anti-Erk1/2 Antibody [2G1]

RT1484

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IP, IF
Molecular Wt:	ERK 1: 44 kDa, ERK 2: 42 kDa
Clone number:	2G1

Description: Mitogen-activated protein kinase (MAPK) signaling pathways involve two closely related MAP kinases, known as extracellular-signal-related kinase 1 (ERK 1, p44) and 2 (ERK 2, p42). Growth factors, steroid hormones, G protein-coupled receptor ligands and neurotransmitters can initiate MAPK signaling pathways. Activation of ERK 1 and ERK 2 requires phosphorylation by upstream kinases such as MAP kinasekinase (MEK), MEK kinase and Raf-1. ERK 1 and ERK 2 phosphorylation can occur at specific tyrosine and threonine sites mapping within consensus motifs that include the threonine-glutamate-tyrosine motif. ERK activation leads to dimerization with other ERKs and subsequent localization to the nucleus. Active ERK dimers phosphorylate serine and threonine residues on nuclear proteins and influence a host of responses that include proliferation, differentiation, transcription regulation and development. The human ERK 1 gene maps to chromosome 16p12-p11.2 and encodes a 379 amino acid protein that shares 83% sequence identity to ERK 2.

Immunogen: Amino acids 325-345 of ERK 1 of rat origin.

Positive control: A-431, rat cerebrum tissue.

Subcellular location: Cytoplasm, Nucleus

Database links: SwissProt: P28482 Human

Recommended Dilutions:

WB	1:100-1:1,000
IP	1-2 μg per 100-500 μg of total protein(1 ml of cell lysate)
IF	1:50-1:500

Storage Buffer: 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Storage Instruction: Store at +4℃

Purity: Protein A affinity purified.

Images

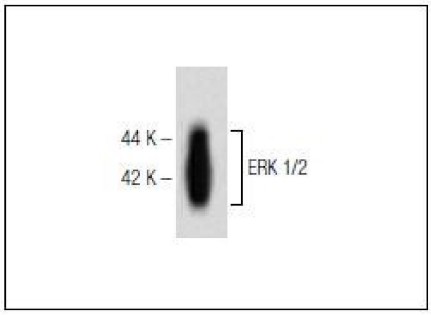

Fig1: Western blot analysis of ERK 1/2 expression in rat cerebrum tissue extract.

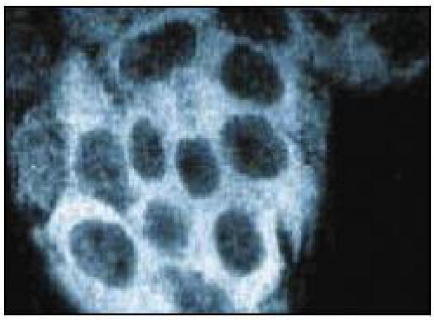

Fig2: Immunofluorescence staining of A-431 cells showing cytoplasmic staining.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Kaminski, K.A., et al. 2012. Interleukin 6 is not necessary for STAT3 phosphorylation and myocardial hypertrophy following short term β-adrenergic stimulation. Adv. Med. Sci. 57: 94-99.
2. Roland, H., et al. 2012. A combination of a ribonucleotide reductase inhibitor and histone deacetylase inhibitors downregulates EGFR and triggers BIM-dependent apoptosis in head and neck cancer. Oncotarget 3: 31-43.