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Product datasheet for AM09379PU-S

ERK1 (MAPK3) Mouse Monoclonal Antibody [Clone ID: AT1A2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	AT1A2
Applications:	ELISA, IF, WB
Recommended Dilution:	**ELISA.** **Western blot** (1/250-1/500). **Immunofluorescence** (1/250-1/500).
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Recombinant human MAPK3 protein (1-137aa) purified from E. coli
Specificity:	The antibody recognizes human MAPK3. Other species not tested.
Formulation:	PBS, pH 7.4 containing 0.02% Sodium Azide and 10% Glycerol State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Protein-G affinity chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	mitogen-activated protein kinase 3
Database Link:	Entrez Gene 5595 Human P27361

View online »

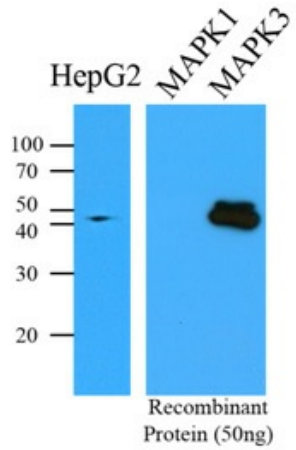
Background: Mitogen-activated protein kinase (MAPKs) are a widely conserved family of serine/threonine kinase involved in many cellular programs such as cell proliferation, differentiation, motility, and death. MAPK3 (ERK1) signaling pathway can be activated in response to a diverse range of extracellular stimuli including mitogens, growth factors, and cytokines and is on 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.

Synonyms: MAP kinase 3, MAPK 3, ERK-1, ERT2, p44-MAPK, p44-ERK1, PRKM3

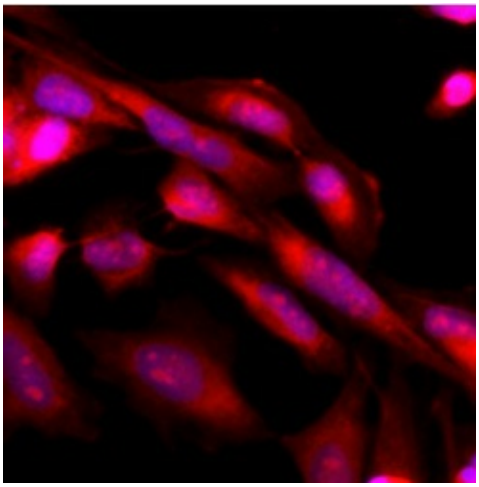
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

Protein Pathways: Acute myeloid leukemia, Adherens junction, Alzheimer's disease, Axon guidance, B cell receptor signaling pathway, Bladder cancer, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Dorso-ventral axis formation, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Melanoma, mTOR signaling pathway, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Non-small cell lung cancer, Oocyte meiosis, Pancreatic cancer, Pathways in cancer, Prion diseases, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, TGF-beta signaling pathway, Thyroid cancer, Toll-like receptor signaling pathway, Type II diabetes mellitus, Vascular smooth muscle contraction, VEGF signaling pathway

Product images:



Western blot analysis: Cell lysates of HepG2 (35 ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human MAPK3 (1:500). To determine specificity of anti-human MAPK3 antibody, western blot was performed using the MAPK1 and MAPK3 recombinant proteins (50ng). Proteins were visualized using a goat anti-mouse antibody.



Immunofluorescence of HeLa cells stained with Hoechst 3342 (Blue) for nucleus staining and monoclonal anti-human MAPK3 antibody (1:500) with Texas Red (Red).