

## Product datasheet for **TA392529**

### ERK1 (MAPK3) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:1000~1:2000 IF: 1:50~1:200 IP: 1:50~1:200 IHC:1:50~1:200
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to Human ERK1/2.
Specificity:	ERK1/2 (Y204) polyclonal antibody detects endogenous levels of ERK1/2 protein.
Formulation:	Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2
Concentration:	1mg/ml
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.
Stability:	1 year
Predicted Protein Size:	~ 42, 44 kDa
Gene Name:	mitogen-activated protein kinase 3
Database Link:	<a href="#">Entrez Gene 5595 Human P27361</a>



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**Background:**

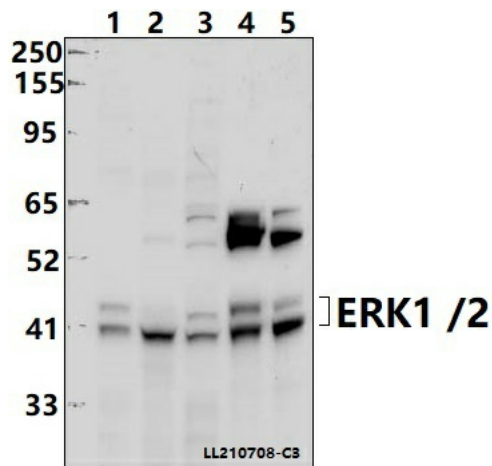
Mitogen-activated protein kinases (MAPKs) are a widely conserved family of serine/threonine protein kinases involved in many cellular programs, such as cell proliferation, differentiation, motility, and death. The p44/42 MAPK (Erk1/2) signaling pathway can be activated in response to a diverse range of extracellular stimuli including mitogens, growth factors, and cytokines, and research investigators consider it an 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. 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 and the transcription factor Elk-1. p44/42 are negatively regulated by a family of dual-specificity (Thr/Tyr) MAPK phosphatases, known as DUSPs or MKPs, along with MEK inhibitors, such as U0126 and PD98059.

**Synonyms:**

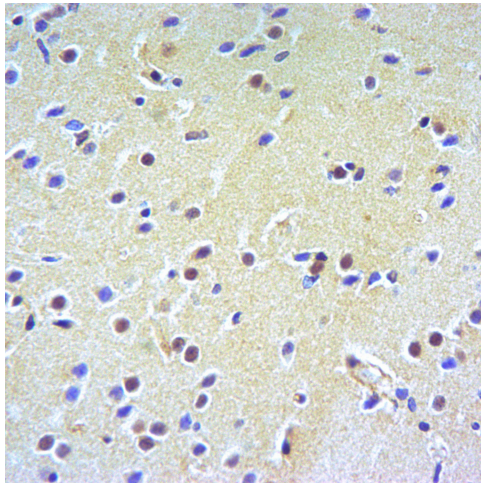
ERK-1; ERK1; ERT2; Extracellular signal-regulated kinase 1; Insulin-stimulated MAP2 kinase; MAPK 3; MAPK3; MAP kinase 3; MAP kinase isoform p44; Microtubule-associated protein 2 kinase; Mitogen-activated protein kinase 3; p44-ERK1; p44-MAPK; PRKM3

**Note:**

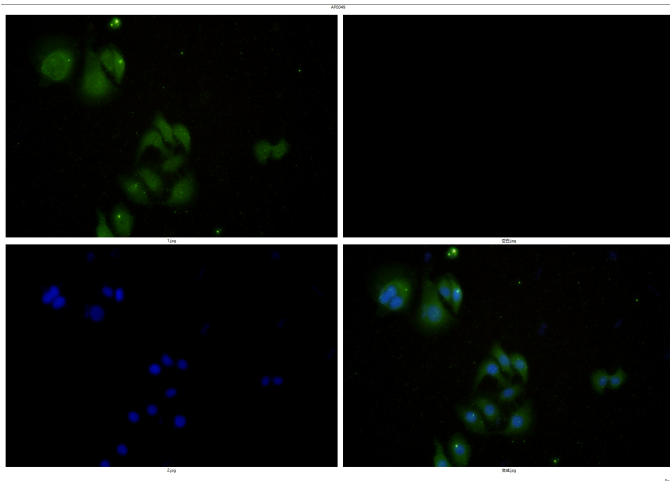
For research use only, not for use in diagnostic procedure.

**Product images:**


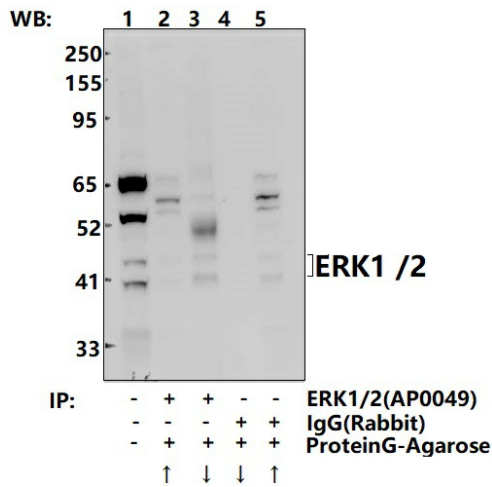
Western blot (WB) analysis of ERK1/2 (Y204) polyclonal antibody at 1:1000 dilution  
 Lane1:HEK293T whole cell lysate(40ug)  
 Lane2:Jurkat whole cell lysate(40ug) Lane3:A549 whole cell lysate(40ug) Lane4:The Spinal cord tissue lysate of Rat(40ug) Lane5:The Brain tissue lysate of Mouse(40ug)



Immunohistochemistry of paraffin-embedded Human Brain using ERK1/2 (Y204) antibody at dilution of 1:50.



Immunofluorescence analysis of A549 cells using ERK1/2 (Y204) antibody at dilution of 1:50.



Immunoprecipitation of C6 cell lysates using ERK1/2 (Y204) pAb (Sepharose Bead Conjugate)#BD0048 (lane 2 and lane 3) and Nonspecific IgG Control (Sepharose Bead Conjugate)#BD0048 (lane 4 and lane 5). Lane 1 is 30% input. The western blot was probed using ERK1/2 (Y204) pAb #TA392529.