

Anti-ERK1/2 Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

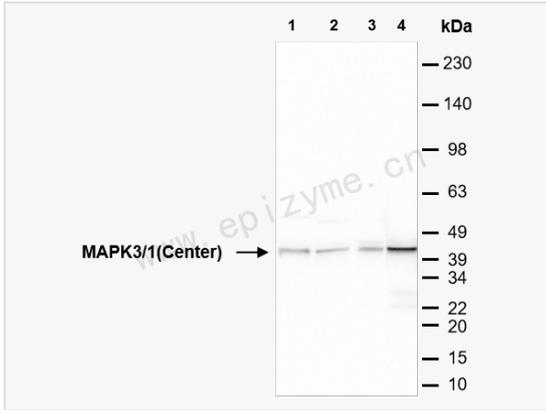
Catalog # M014755

Product Information

Application	IF (Cell)/ICC, ELISA, WB, IHC-P/IF (Tissue-P)
Reactivity	Rat, Human, Mouse (Cell)
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	72P52T83
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human ERK1/2
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-ERK1/2 Mouse mAb [72P52T83] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	ERK 1, ERK 2, ERK-1, ERK-2, ERK1, erk1/2, ERK2, ERT1, ERT2, Extracellular signal regulated kinase 1, Extracellular signal-regulated kinase 1, Extracellular signal-regulated kinase 2, HS44KDAP, HUMKER1A, Insulin-stimulated MAP2 kinase, MAP kinase 1, MAP kinase 2, MAP kinase 3, MAP kinase isoform p42, MAP kinase isoform p44, MAPK 1, MAPK 2, MAPK 3, Mapk1, MAPK2, MAPK3, Microtubule-associated protein 2 kinase, Mitogen-activated protein kinase 1, Mitogen-activated protein kinase 2, Mitogen-activated protein kinase 3, MK01_HUMAN, p41mapk, p42-MAPK, P42MAPK, p44-ERK1, p44-MAPK, p44ERK1, p44MAPK, PRKM 2, PRKM1, PRKM2, PRKM3, protein tyrosine kinase ERK2.
Calculated MW	Calculated MW: 43 kDa; Observed MW: 43 kDa
Uniprot ID	P27361
Gene ID	5595
Background	Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK1/ERK2 and MAPK3/ERK1 are the 2 MAPKs which play an important role in the MAPK/ERK cascade. They participate also in a signaling cascade initiated by activated KIT and KITLG/SCF. Depending on the cellular context, the MAPK/ERK cascade mediates diverse biological functions such as cell growth, adhesion, survival and differentiation through the regulation of transcription, translation, cytoskeletal rearrangements. The MAPK/ERK cascade plays also a role in initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors. About 160 substrates have already been discovered for ERKs. Many of these substrates are localized in the nucleus, and seem to participate in the regulation of transcription upon stimulation. However, other substrates are found in the cytosol as well as in other cellular organelles, and those are responsible for processes such as translation, mitosis and apoptosis. Moreover, the



Western Blot - Anti-ERK1/2 Mouse mAb [72P52T83]

All lanes: M014755 at 1:2,000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: U2OS (Human osteosarcoma epithelial cell) whole cell lysates

Lane 3: T24 (Human bladder cancer epithelial cell) whole cell lysates

Lane 4: Rat spleen whole tissue lysates

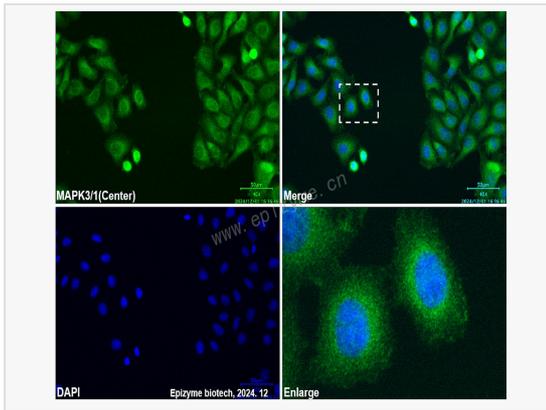
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution

Predicted band size: 43 kDa

Observed band size: 43 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunofluorescence - Anti-ERK1/2 Mouse mAb [72P52T83]

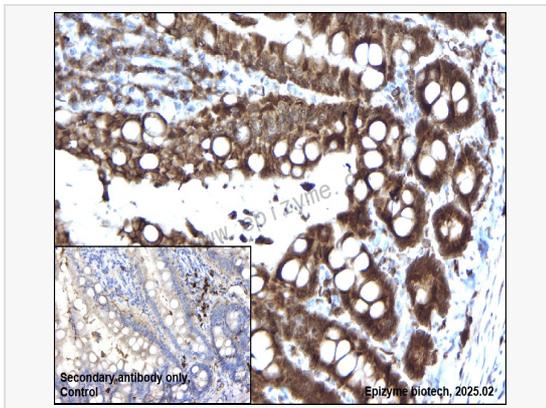
Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibody: M014755 at 1:100 dilution

Secondary antibody: Goat anti-Mouse (488) at 1:1,000 dilution (shown in green)

Nuclei were stained with DAPI (shown in blue).



Immunohistochemistry - Anti-ERK1/2 Mouse mAb [72P52T83]

Sample: Paraformaldehyde-fixed, paraffin embedded rat colon tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: M014755 at 1:200 dilution

Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.