Leader in Biomolecular Solutions for Life Science

ERK1/2 Rabbit mAb

Catalog No.: A4782

Recombinant | 128 Publications

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Basic Information

Observed MW
42 kDa/44 kDa

Calculated MW
42 kDa/44 kDa

Category
Monoclonal Antibodies

Applications
WB, Auto WB, IF/ICC, IF-F, IHC-P, ELISA

Cross Reactivity
Human, Mouse, Rat

Clone No.
ARC0212

Background

This gene encodes a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. The activation of this kinase requires its phosphorylation by upstream kinases. Upon activation, this kinase translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets. One study also suggests that this protein acts as a transcriptional repressor independent of its kinase activity. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Two alternatively spliced transcript variants encoding the same protein, but differing in the UTRs, have been reported for this gene. [provided by RefSeq, Jan 2014]

Recommended Dilutions

WB	1:1000 - 1:6000
Auto WB	1:100 - 1:500
IF/ICC	1:200 - 1:400
IF-F	1:100 - 1:1000
IHC-P	1:4000 - 1:16000

ELISA
Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
5594/5595

Swiss-Prot
P28482/P27361

Immunogen
Recombinant protein (or fragment).This information is considered to be commercially sensitive.

Synonyms
ERK; ERK-2; ERK2; ERT1; MAPK2; P42MAPK; PRKM1; PRKM2; p38; p40; p41; p41mapk; p42-MAPK; 5594/5595; ERK1/2

Contact

400-999-6126
cn.market@abclonal.com.cn
www.abclonal.com.cn

Product Information

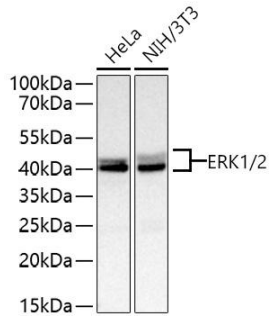
Source
Rabbit

Isotype
IgG

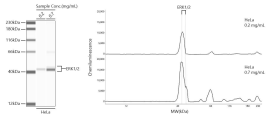
Purity
Affinity purification

Storage
Store at -20℃
Buffer: PBS containing 50% glycerol and 0.05% BSA, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

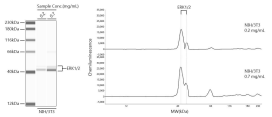
Validation Data



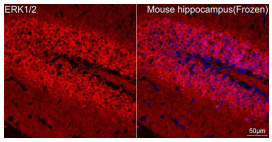
Western blot analysis of various lysates using ERK1/2 Rabbit mAb (A4782) at 1:4000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1: 10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 1 s.



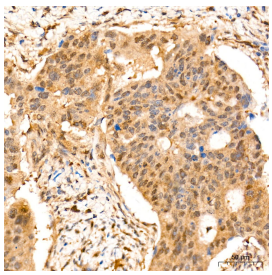
Simple Western™ analysis of lysates from HeLa cells using ERK1/2 Rabbit mAb (A4782) at 1:100 dilution. The virtual lane view (left) shows the target band (as indicated) with samples in concentrations of 0.2 mg/mL and 0.7 mg/mL. The corresponding electropherogram view (right) plots chemiluminescence intensity against molecular weight along the capillary for sample concentrations of 0.2 mg/mL and 0.7 mg/mL. This experiment was performed under reducing conditions on the Jess™ Simple Western instrument from ProteinSimple, a BioTechne brand, using the 12-230 kDa separation module.



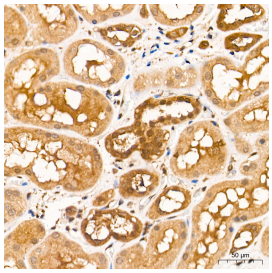
Simple Western™ analysis of lysates from NIH/3T3 cells using ERK1/2 Rabbit mAb (A4782) at 1:100 dilution. The virtual lane view (left) shows the target band (as indicated) with samples in concentrations of 0.2 mg/mL and 0.7 mg/mL. The corresponding electropherogram view (right) plots chemiluminescence intensity against molecular weight along the capillary for sample concentrations of 0.2 mg/mL and 0.7 mg/mL. This experiment was performed under reducing conditions on the Jess™ Simple Western instrument from ProteinSimple, a BioTechne brand, using the 12-230 kDa separation module.



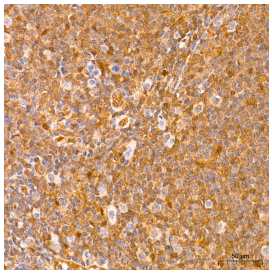
Confocal imaging of frozen sections of Mouse hippocampus tissue using ERK1/2 Rabbit mAb (A4782, dilution 1:1000) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Microwave antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



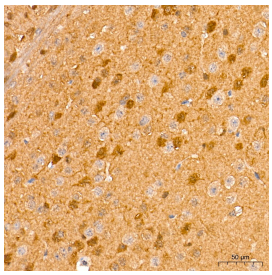
Immunohistochemistry analysis of paraffin-embedded Human colon carcinoma tissue using ERK1/2 Rabbit mAb (A4782) at a dilution of 1:9600 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



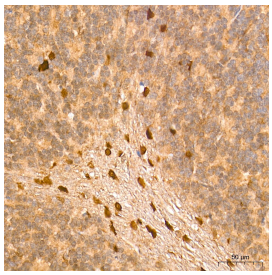
Immunohistochemistry analysis of paraffin-embedded Human kidney tissue using ERK1/2 Rabbit mAb (A4782) at a dilution of 1:9600 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



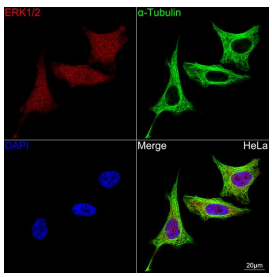
Immunohistochemistry analysis of paraffin-embedded Human tonsil tissue using ERK1/2 Rabbit mAb (A4782) at a dilution of 1:9600 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



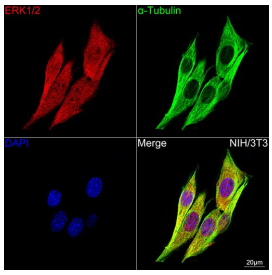
Immunohistochemistry analysis of paraffin-embedded Mouse brain tissue using ERK1/2 Rabbit mAb (A4782) at a dilution of 1:9600 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



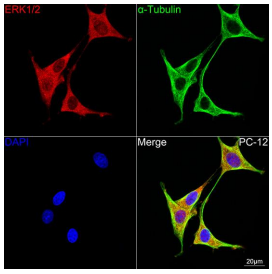
Immunohistochemistry analysis of paraffin-embedded Rat brain tissue using ERK1/2 Rabbit mAb (A4782) at a dilution of 1:9600 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Confocal imaging of HeLa cells using ERK1/2 Rabbit mAb (A4782, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.



Confocal imaging of NIH/3T3 cells using ERK1/2 Rabbit mAb (A4782, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.



Confocal imaging of PC-12 cells using ERK1/2 Rabbit mAb (A4782, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.