

PRODUCT INFORMATION



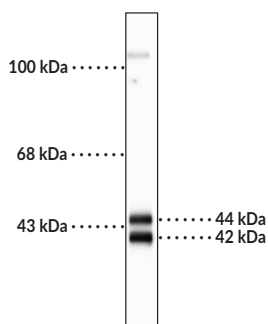
ERK/MAPK Polyclonal Antibody

Item No. 29263

Overview and Properties

Contents:	This vial contains 100 µl of affinity-purified rabbit polyclonal antibody.
Synonyms:	MAP Kinase, Mitogen-activated Protein Kinase
Immunogen:	Peptide corresponding to amino acid residues from the C-terminus of rat ERK/MAPKX
Molecular Weight:	~44 and 42 kDa for ERK1/MAPK3 and ERK2/MAPK1, respectively
Species Reactivity:	(+) Human, mouse, rat
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	10 mM HEPES, pH 7.5, with 150 mM sodium chloride, 100 µg/ml BSA, and 50% glycerol
Host:	Rabbit
Applications:	Immunocytochemistry (ICC) and Western blot (WB); the recommended starting dilution for ICC is 1:250 and 1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



WB of rat hippocampal homogenate showing specific immunolabeling of the ERK/MAPK protein. The bands at 44 and 42 kDa correspond to ERK1/MAPK3 and ERK2/MAPK1, respectively.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Extracellular-signal-regulated kinase/mitogen-activated protein kinases (ERK/MAPKs) are a widely conserved family of serine/threonine protein kinases and essential components of the MAP kinase signaling cascade.^{1,2} Upon extracellular stimulation with mitogens, growth factors, or cytokines, a sequential three-part signaling cascade is initiated that terminates with phosphorylation of ERK/MAPK by MEK1 or MEK2. Activated ERK/MAPK is translocated to the nucleus where it regulates transcription factor activity and gene transcription for a variety of cellular processes including cell proliferation, differentiation, and stress response. Misregulation of the MAP kinase cascade drives development of various cancers. ERK1/MAPK3 and ERK2/MAPK1 are two key members of the ERK/MAPK family encoded by *MAPK3* and *MAPK1*, respectively, in humans and are expressed in all tissues. Cayman's ERK/MAPK Polyclonal Antibody can be used for immunocytochemistry (ICC) and Western blot (WB) applications. The antibody recognizes ERK1/MAPK3 and ERK2/MAPK1 at approximately 44 and 42 kDa, respectively from human, mouse, and rat samples.

References

1. Santarpia, L., Lippman, S.L., and El-Naggar, A.K. Targeting the mitogen-activated protein kinase RAS-RAF signaling pathway in cancer therapy. *Expert. Opin. Ther. Targets* **16**(1), 103-119 (2012).
2. Guo, Y.-J., Pan, W.-W., Liu, S.-B., *et al.* ERK/MAPK signalling pathway and tumorigenesis. *Exp. Ther. Med.* **19**(3), 1997-2007 (2020).

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