

## DATASHEET

# ERK2 Mouse Monoclonal Antibody(C2827)

CAT. NO. AMA02439

### KEY FEATURES

Target	ERK2	Source / Host	Mouse
Reactivity	Human, Mouse, Monkey	Clonality	Monoclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG2a. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

### 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 also plays 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.

### APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:500
IF/ICC	1:100 - 1:500

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

### PRODUCT OVERVIEW

Description	Mouse monoclonal to ERK2
Specificity	Recognizes endogenous levels of ERK2 protein
Antibody Type	Primary antibody
Immunogen	Recombinant fusion protein of human ERK2 expressed in E. Coli
Purification	This antibody is purified through a protein G column.
Molecular Weight	Predicted: 41 kD; Observed: 41 kD
Form/Buffer	Mouse IgG2a. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	ERK2; PRKM1; PRKM2; Mitogen-activated protein kinase 1; MAP kinase 1; MAPK 1; ERT1; Extracellular signal-regulated kinase 2; ERK-2; MAP kinase isoform p42; p42-MAPK; Mitogen-activated protein kinase 2; MAP kinase 2; MAPK 2
Gene Symbol	MAPK1
Entrez Gene	5594(Human); 116590(Rat)
SwissProt	P28482(Human); P63085(Mouse)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

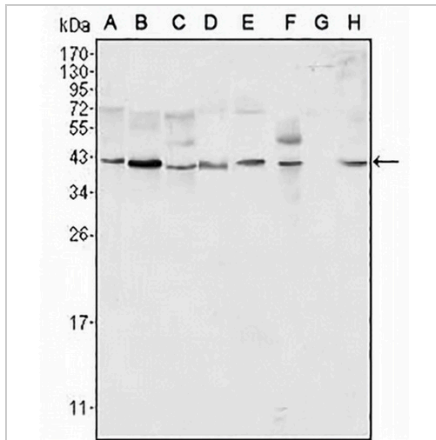
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

**DATASHEET**

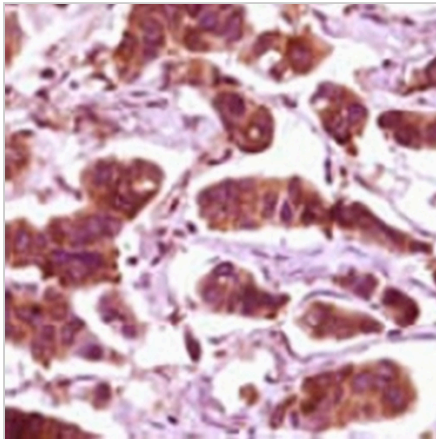
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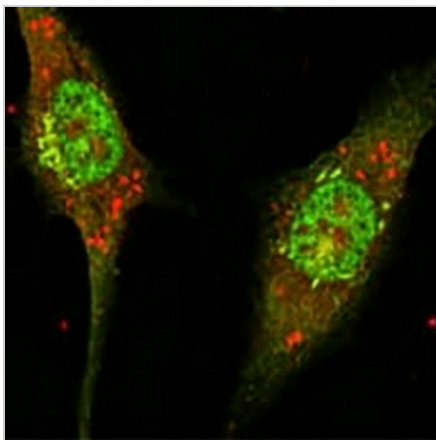
**DATA**



Western blot analysis of ERK2 expression in HeLa (A), NIH/3T3 (B), MCF7 (C), HEK293 (D), Jurkat (E), A549 (F), NTERA2 (G), SMMC7721 (H) whole cell lysates. (Predicted band size: 41 kD; Observed band size: 41 kD)



Immunohistochemical analysis of ERK2 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of ERK2 staining in Eca109 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.