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Datasheet for ABIN1724654

## anti-ERK2 antibody

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### Overview

Quantity:	100 µL
Target:	ERK2 (MAPK1)
Reactivity:	Human, Mouse, Monkey
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ERK2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunocytochemistry (ICC)

### Product Details

Immunogen:	Purified recombinant fragment of human ERK2 expressed in E. coli.
Clone:	4C11
Isotype:	IgG2a
Purification:	purified

### Target Details

Target:	ERK2 (MAPK1)
Alternative Name:	ERK2 ( <a href="#">MAPK1 Products</a> )
Background:	Description: ERK2 (also designated extracellular-signal-related kinase 2 or mitogen-activated protein kinase 1), with 360-amino acid protein (about 40 kDa), belongs to the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation,

## Target Details

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transcription regulation and development. The activation of ERK2 requires its phosphorylation by upstream kinases. ERK2 is located in the cytoplasm of resting cells and translocates into the nucleus upon extracellular stimuli by active transport of a dimer. ERK2 is essential for placental development and ERK2 in the trophoblast compartment may be indispensable for the vascularization of the labyrinth.

Aliases: ERK, p38, p40, p41, ERT1, MAPK2, PRKM1, P42MAPK, p41mapk, MAPK1

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Molecular Weight: 41 kDa

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Gene ID: 5594

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HGNC: 5594

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Pathways: [MAPK Signaling](#), [RTK Signaling](#), [Apoptosis](#), [Interferon-gamma Pathway](#), [Fc-epsilon Receptor Signaling Pathway](#), [Response to Growth Hormone Stimulus](#), [Activation of Innate immune Response](#), [Cellular Response to Molecule of Bacterial Origin](#), [Hepatitis C](#), [Protein targeting to Nucleus](#), [Toll-Like Receptors Cascades](#), [Monocarboxylic Acid Catabolic Process](#), [Autophagy](#), [G-protein mediated Events](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#), [Signaling of Hepatocyte Growth Factor Receptor](#), [VEGFR1 Specific Signals](#), [BCR Signaling](#), [S100 Proteins](#)

## Application Details

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Application Notes: ELISA: 1:10000, WB: 1:500 - 1:2000, IHC: 1:200 - 1:1000, ICC: 1:200 - 1:1000

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: Purified antibody in PBS containing 0.03 % sodium azide.

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Preservative: Sodium azide

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Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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Storage: 4 °C/-20 °C

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Storage Comment: 4°C, -20°C for long term storage

## Publications

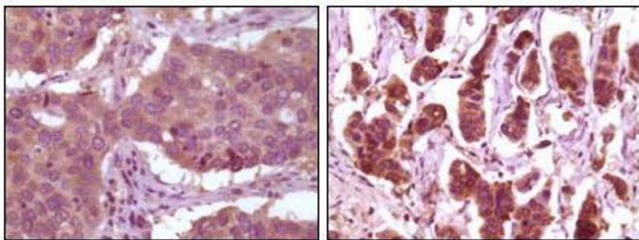
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Product cited in: Galati, Magdinier, Colasanti, Bauwens, Pinte, Ricordy, Giraud-Panis, Pusch, Savino, Cacchione,

Gilson: "TRF2 controls telomeric nucleosome organization in a cell cycle phase-dependent manner." in: **PLoS ONE**, Vol. 7, Issue 4, pp. e34386, (2012) ([PubMed](#)).

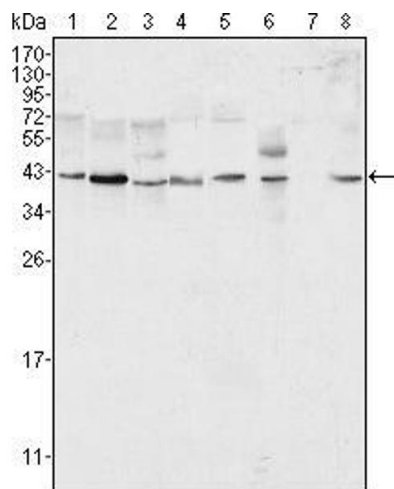
Diehl, Idowu, Kimmelshue, York, Jackson-Cook, Turner, Holt, Elmore: "Elevated TRF2 in advanced breast cancers with short telomeres." in: **Breast cancer research and treatment**, Vol. 127, Issue 3, pp. 623-30, (2011) ([PubMed](#)).

## Images



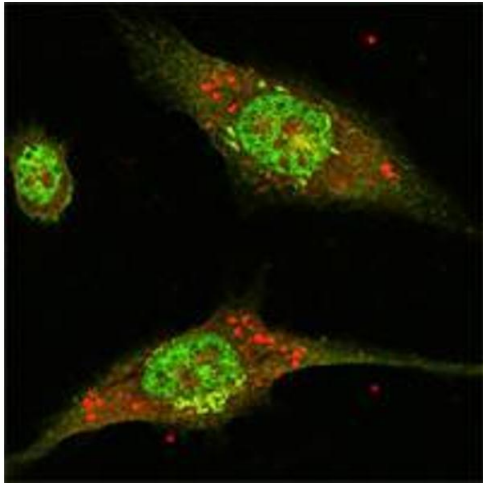
### Immunohistochemistry

**Image 1.** Immunohistochemical analysis of paraffin-embedded human lung carcinoma (left) and breast carcinoma (right) showing cytoplasmic localization using ERK2 mouse mAb with DAB staining.



### Western Blotting

**Image 2.** Western blot analysis using ERK2 mouse mAb against HeLa (1), NIH/3T3 (2), MCF-7 (3), HEK293 (4), Jurkat (5), A549 (6), NTERA-2 (7) and SMMC-7721 (8) cell lysate.



### Immunofluorescence

**Image 3.** Confocal immunofluorescence analysis of Eca-109 cells using ERK2 mouse mAb (green).