Datasheet for ABIN7159972

anti-ERK2 antibody (AA 310-360)

4 Images

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Overview

Quantity:	100 µg
Target:	ERK2 (MAPK1)
Binding Specificity:	AA 310-360
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ERK2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human Mitogen-activated protein kinase 1 protein (310-360AA)
Isotype:	IgG
Cross-Reactivity:	Human, Rat
Purification:	>95%, Protein G purified

Target Details

Target:	ERK2 (MAPK1)
Alternative Name:	MAPK1 (MAPK1 Products)
Background:	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 MAPK/ERK cascade is also involved in the regulation of the endosomal dynamics, including lysosome processing and endosome cycling through the perinuclear recycling compartment (PNRC), as well as in the fragmentation of the Golgi apparatus during mitosis. The substrates include transcription factors (such as ATF2, BCL6, ELK1, ERF, FOS, HSF4 or SPZ1), cytoskeletal elements (such as CANX, CTTN, GJA1, MAP2, MAPT, PXN, SORBS3 or STMN1), regulators of apoptosis (such as BAD, BTG2, CASP9, DAPK1, IER3, MCL1 or PPARG), regulators of translation (such as EIF4EBP1) and a variety of other signaling-related molecules (like ARHGEF2, DCC, FRS2 or GRB10). Protein kinases (such as RAF1, RPS6KA1/RSK1, RPS6KA3/RSK2, RPS6KA2/RSK3, RPS6KA6/RSK4, SYK, MKNK1/MNK1, MKNK2/MNK2, RPS6KA5/MSK1, RPS6KA4/MSK2, MAPKAPK3 or MAPKAPK5) and phosphatases (such as DUSP1, DUSP4, DUSP6 or DUSP16) are other substrates which enable the propagation the MAPK/ERK signal to additional cytosolic and nuclear targets, thereby extending the specificity of the cascade. Mediates phosphorylation of TPR in respons to EGF stimulation. May play a role in the spindle assembly checkpoint. Phosphorylates PML and promotes its interaction with PIN1, leading to PML degradation. Aliases: ERK 2 antibody, ERK-2 antibody, ERT1 antibody, Extracellular Signal Regulated Kinase 2 antibody, Extracellular signal-regulated kinase 2 antibody, MAP kinase 1 antibody, MAP kinase 2 antibody, MAP kinase isoform p42 antibody, MAPK 1 antibody, MAPK 2 antibody, Mapk1 antibody, MAPK2 antibody, Mitogen-activated protein kinase 1 antibody, Mitogen-activated protein kinase 2 antibody, MK01_HUMAN antibody, P38 antibody, P40 antibody, P41 antibody, p42-MAPK antibody, P42MAPK antibody, PRKM1 antibody, PRKM2 antibody, protein kinase, mitogen-activated, 1 antibody, protein kinase, mitogen-activated, 2 antibody, protein tyrosine kinase ERK2 antibody
UniProt:	P28482
Pathways:	MAPK Signaling, RTK Signaling, Apoptosis, Interferon-gamma Pathway, Fc-epsilon Receptor

Target Details

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

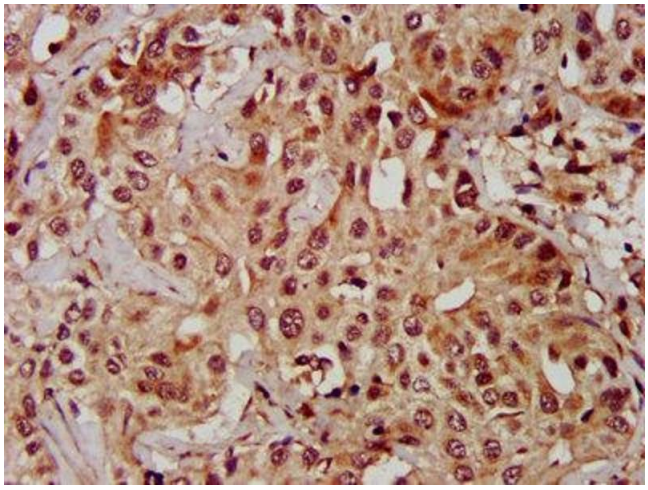
Application Details

Application Notes:	Recommended dilution: WB:1:500-1:5000, IHC:1:500-1:1000, IF:1:50-1:500,
Restrictions:	For Research Use only

Handling

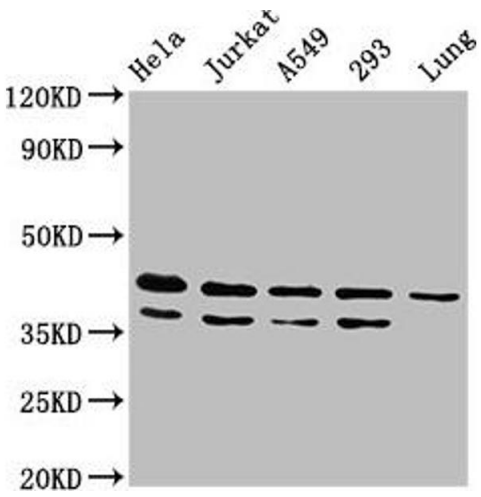
Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



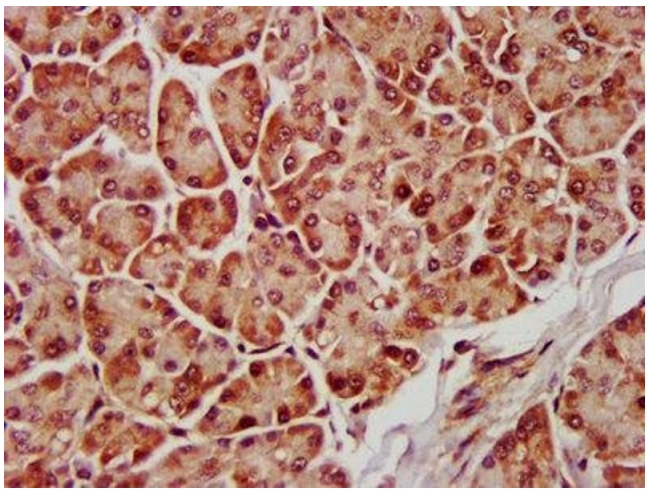
Immunohistochemistry

Image 1. IHC image of ABIN7159972 diluted at 1:600 and staining in paraffin-embedded human liver cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Western Blotting

Image 2. Western Blot Positive WB detected in: Hela whole cell lysate, Jurkat whole cell lysate, A549 whole cell lysate, 293 whole cell lysate, Rat lung tissue All lanes: MAPK1 antibody at 4.8 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 42, 37 kDa Observed band size: 42, 37 kDa



Immunohistochemistry

Image 3. IHC image of ABIN7159972 diluted at 1:600 and staining in paraffin-embedded human pancreatic tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

Please check the product details page for more images. Overall 4 images are available for ABIN7159972.