


Product datasheet

Anti-ERK2 antibody ab227134

6 Images

Overview

Product name	Anti-ERK2 antibody
Description	Rabbit polyclonal to ERK2
Host species	Rabbit
Tested applications	Suitable for: IP, IHC-P, WB
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Chicken, Cow, Dog, Xenopus laevis, Zebrafish 
Immunogen	Recombinant fragment within Human ERK2 (internal sequence). The exact sequence is proprietary. Database link: P28482
Positive control	WB: HeLa cell extract; HeLa and H1299 whole cell lysates; Mouse brain lysate. IHC-P: Human colon carcinoma and breast carcinoma tissues. IP: HeLa whole cell extract.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.</p>

Properties

References

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 78.99% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab227134** in the following tested applications.

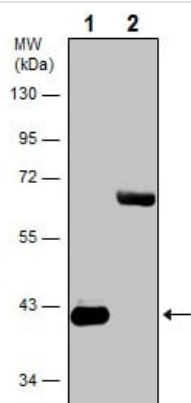
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		1/100 - 1/500.
IHC-P		1/100 - 1/1000.
WB		1/500 - 1/10000. Predicted molecular weight: 41 kDa.

Target

Function	<p>Involved in both the initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors such as ELK1. Phosphorylates EIF4EBP1; required for initiation of translation. Phosphorylates microtubule-associated protein 2 (MAP2). Phosphorylates SPZ1 (By similarity). Phosphorylates heat shock factor protein 4 (HSF4) and ARHGEF2.</p> <p>Acts as a transcriptional repressor. Binds to a [GC]AAA[GC] consensus sequence. Repress the expression of interferon gamma-induced genes. Seems to bind to the promoter of CCL5, DMP1, IFIH1, IFITM1, IRF7, IRF9, LAMP3, OAS1, OAS2, OAS3 and STAT1. Transcriptional activity is independent of kinase activity.</p>
Sequence similarities	<p>Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.</p> <p>Contains 1 protein kinase domain.</p>
Domain	<p>The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.</p>
Post-translational modifications	<p>Dually phosphorylated on Thr-185 and Tyr-187, which activates the enzyme. Dephosphorylated by PTPRJ at Tyr-187.</p>
Cellular localization	<p>Nucleus.</p>

Images



Western blot - Anti-ERK2 antibody (ab227134)

All lanes : Anti-ERK2 antibody (ab227134) at 1/1000 dilution

Lane 1 : Wild-type HeLa (human epithelial cell line from cervix adenocarcinoma) cell extract

Lane 2 : ERK2 knockout HeLa (human epithelial cell line from cervix adenocarcinoma) cell extract

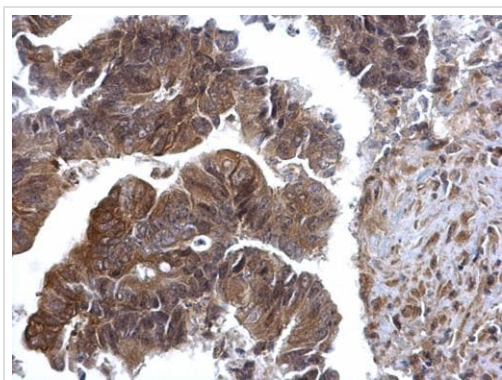
Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG

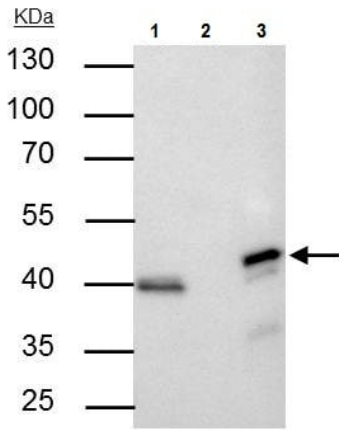
Predicted band size: 41 kDa

10% SDS-PAGE gel.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ERK2 antibody (ab227134)

Paraffin-embedded human colon carcinoma tissue stained for ERK2 using ab227134 at 1/500 dilution in immunohistochemical analysis.



Immunoprecipitation - Anti-ERK2 antibody
(ab227134)

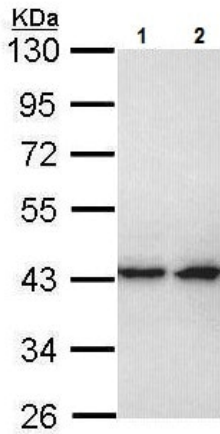
ERK2 was immunoprecipitated from HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extract with 4 μ g ab227134. Western blot was performed from the immunoprecipitate using ab227134 at 1/500 dilution. Anti-rabbit IgG was used as a secondary reagent.

Lane 1: HeLa whole cell extract 30 μ g.

Lane 2: Control IP in HeLa whole cell extract with 4 μ g of preimmune Rabbit IgG.

Lane 3: ab227134 IP in HeLa whole cell extract.

10% SDS-PAGE.



Western blot - Anti-ERK2 antibody (ab227134)

All lanes : Anti-ERK2 antibody (ab227134) at 1/1000 dilution

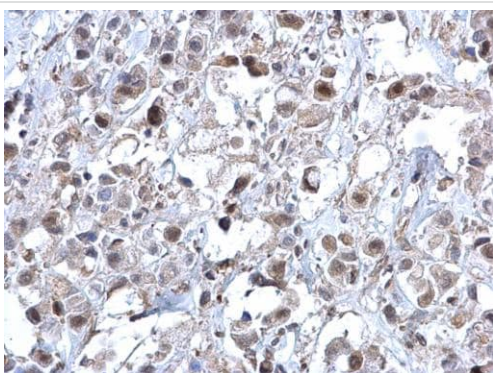
Lane 1 : H1299 (human non-small cell lung carcinoma cell line) whole cell lysate

Lane 2 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lysates/proteins at 30 μ g per lane.

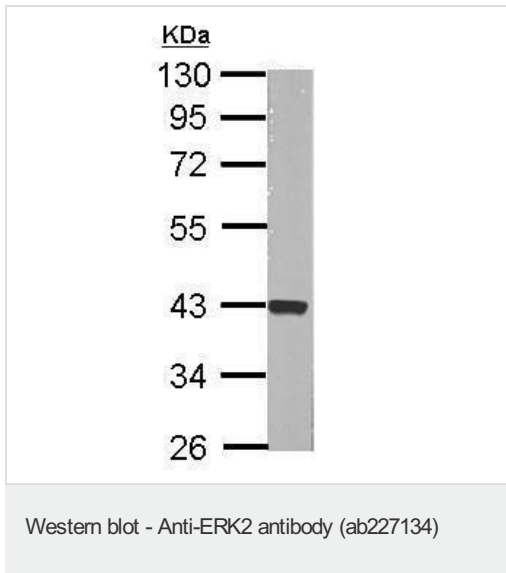
Predicted band size: 41 kDa

10% SDS-PAGE gel.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ERK2 antibody
(ab227134)

Paraffin-embedded human breast carcinoma tissue stained for ERK2 using ab227134 at 1/500 dilution in immunohistochemical analysis.



Anti-ERK2 antibody (ab227134) at 1/5000 dilution + Mouse brain lysate at 50 μ g

Predicted band size: 41 kDa

10% SDS-PAGE gel.

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