

ERK1/ERK2 Polyclonal Antibody

Product Details

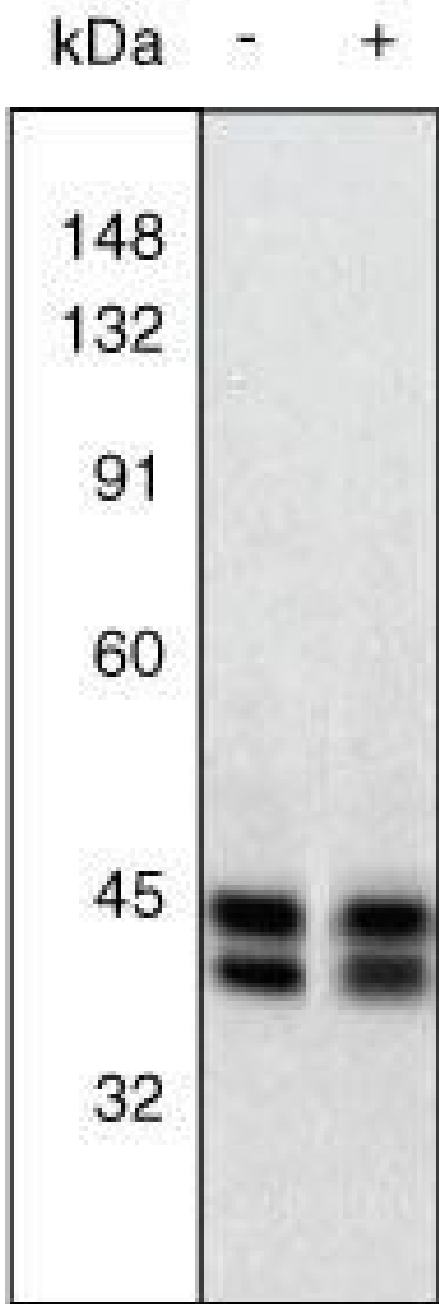
Size	100 µL
Species Reactivity	Bovine, Human, Mouse, Rat
Published Species	Rat, Human, Mouse
Host/Isotope	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	The antibody was produced using a synthetic peptide derived from amino acids 317-339 within the C-terminal half of the human ERK1 protein; the sequence is conserved in human and rat
Form	Liquid
Purification	Antigen affinity chromatography
Storage buffer	Dulbecco's PBS, pH 7.3, with 50% glycerol, 1mg/mL BSA
Contains	0.05% sodium azide
Storage Conditions	-20°C
RRID	AB_2533710

Applications	Tested	Dilution	Published
Western Blot (WB)	✓	1:500-1:2000	20 Publications
Miscellaneous PubMed (MISC)	-		1 Publication
Immunoprecipitation (IP)	-		1 Publication
Immunocytochemistry (ICC)	✓	1 µg/mL	
Immunofluorescence (IF)	✓	1 µg/mL	
Immunohistochemistry (Paraffin) (IHC (P))	✓	1:10-1:100	

Product Specific Information

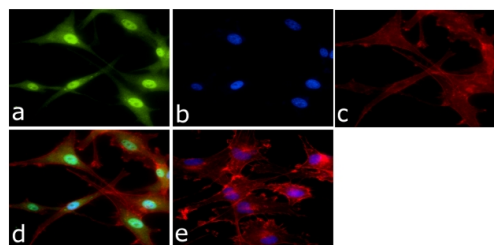
For western blotting applications, we recommend using the antibody at a 1:1,000 starting dilution. Positive controls used in western blotting were human epidermoid carcinoma A431, mouse NIH3T3, and rat pheochromocytoma (PC12) cells.

Product Images For ERK1/ERK2 Polyclonal Antibody



ERK1/ERK2 Antibody (44-654G) in WB

Western Blot. Extracts of PC12 cells unstimulated (-) or stimulated with 20 ng/mL NGF for 20 minutes (+) were resolved by SDS-PAGE on a 10% Tris-glycine gel and transferred to nitrocellulose. The membrane was blocked with a 5% BSA-TBST buffer overnight at 4°C, then incubated with 0.5 µg/mL ERK1 and 2 antibody for two hours at room temperature in a 3% BSA-TBST buffer. After washing, the membrane was incubated with goat F(ab')₂ anti-rabbit IgG alkaline phosphatase (Product # ALI4405) and signals were detected using the Tropix WesternStar™ method. The data show that the ERK1 and 2 antibody allows the total amount of ERK1 and 2 to be measured (non-phosphorylated as well as phosphorylated). The resulting signals serve as useful controls in assessing the degree of up-regulation as detected using an antibody to the dually phosphorylated (active) form of ERK1 and 2 (Product # 44-680G).

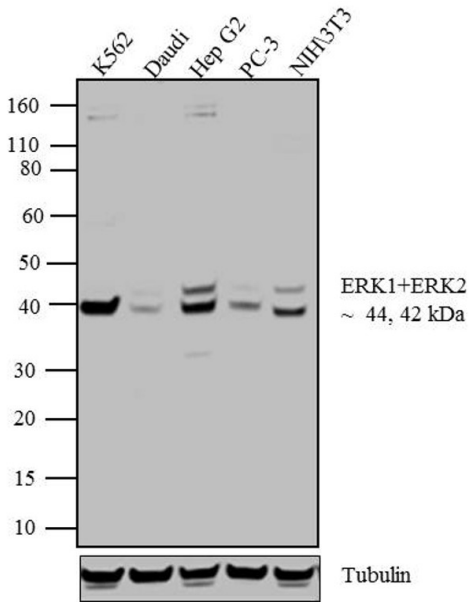


ERK1/ERK2 Antibody (44-654G) in IF

Immunofluorescent analysis of ERK1 + ERK2 Antibody was done on 70% confluent log phase U87-MG cells. The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.25% Triton™ X-100 for 10 minutes, and blocked with 5% BSA for 1 hour at room temperature. The cells were labeled with ERK1 + ERK2 Antibody (Product # 44-654G) at 1:250 dilution in 1% BSA and incubated for 3 hours at room temperature and then labeled with Alexa Fluor 488 Goat Anti-Rabbit IgG Secondary Antibody (Product # A-11008) at a dilution of 1:400 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor 594 Phalloidin (Product # A12381). Panel d is a merged image showing cytoplasmic and nuclear localization. Panel e is a no primary antibody control. The images were captured at 40X magnification.

ERK1/ERK2 Antibody (44-654G) in WB

Western blot analysis of ERK1 + ERK2 was performed by loading 20 µg of K562 (lane1), Daudi (lane2), Hep G2 (lane3), PC-3 (lane4) and NIH\u0003T3 (lane5) cell lysate using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0322BOX), XCell SureLock™ Electrophoresis System (Product # EI0002), Novex® Sharp Pre-Stained Protein Standard (LC5800), and iBlot® Dry Blotting System (IB21001). Proteins were transferred to a nitrocellulose membrane and blocked with 5 % skim milk for 1 hour at room temperature. ERK1 + ERK2 was detected at ~44 and 42 kDa using ERK1 + ERK2 Rabbit Polyclonal Antibody (Product # 44-654G) at 1:1000 dilution in 5 % skim milk at 4°C overnight on a rocking platform. Goat Anti-Rabbit IgG - HRP Secondary Antibody (G21234) at 1:5000 dilution was used and chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).



[View more figures on thermofisher.com](https://www.thermofisher.com)

22 References

Western Blot (20)

Bioscience reports

Neonatal maternal deprivation impairs localized *de novo* activity-induced protein translation at the synapse in the rat hippocampus.

Authors: Ahmad F, Salahuddin M, Alsamman K, Herzallah HK, Al-Otaibi ST

Species
Rat

Dilution
Not Cited

Year
2018

Cell death and disease

Metformin exerts multitarget antileukemia activity in JAK2^{V617F}-positive myeloproliferative neoplasms.

"Published figure using ERK1/ERK2 polyclonal antibody (Product # 44-654G) in Western Blot"

Authors: Machado-Neto JA, Fenerich BA, Scopim-Ribeiro R, Eide CA, Coelho-Silva JL, Dechandt CRP, Fernandes JC, Rodrigues Alves APN, Scheucher PS, Simões BP, Alberici LC, de Figueiredo Pontes LL, Tognon CE, Druker BJ, Rego EM, Traina F

Species
Human
Not Applicable

Dilution
Not Cited
Not Cited

Year
2018

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Miscellaneous PubMed (1)

Oncotarget

Effects of a novel Nodal-targeting monoclonal antibody in melanoma.

"44-654G was used in western blot to assess the use of 3D1 mAb for treating Nodal expressing cancers."

Authors: Strizzi L, Sandomenico A, Margaryan NV, Focà A, Sanguigno L, Bodenstine TM, Chandler GS, Reed DW, Gilgur A, Seftor EA, Seftor RE, Khalkhali-Ellis Z, Leonardi A, Ruvo M, Hendrix MJ

Species
Human

Dilution
Not Cited

Year
2015

Immunoprecipitation (1)

Blood

Alternative modes of GM-CSF receptor activation revealed using activated mutants of the common beta-subunit.

Authors: Perugini M, Brown AL, Salerno DG, Booker GW, Stojkoski C, Hercus TR, Lopez AF, Hibbs ML, Gonda TJ, D'Andrea RJ

Species
Mouse

Dilution
Not Cited

Year
2010

More applications with references on thermofisher.com

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