BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-ERK5/MAPK7 Antibody Picoband®

Catalog Number: A02812-3

About MAPK7

Mitogen-activated protein kinase 7 also known as MAP kinase 7 is an enzyme that in humans is encoded by the MAPK7 gene. The protein encoded by this gene is a member of 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, transcription regulation and development. This kinase is specifically activated by mitogen-activated protein kinase kinase 5 (MAP2K5/MEK5). It is involved in the downstream signaling processes of various receptor molecules including receptor type kinases, and G protein-coupled receptors. In response to extracelluar signals, this kinase translocates to cell nucleus, where it regulates gene expression by phosphorylating, and activating different transcription factors. Four alternatively spliced transcript variants of this gene encoding two distinct isoforms have been reported.

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Overview

Product Name	Anti-ERK5/MAPK7 Antibody Picoband®
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-ERK5/MAPK7 Antibody Picoband® catalog # A02812-3. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Monkey, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q13164

Technical Details

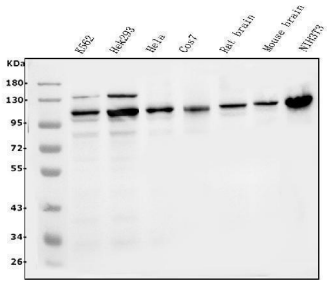
Immunogen	E.coli-derived human ERK5/MAPK7 recombinant protein (Position: K22-P816).

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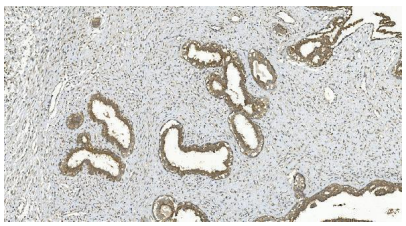
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat, Monkey Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human ELISA, 0.1-0.5ug/ml, -

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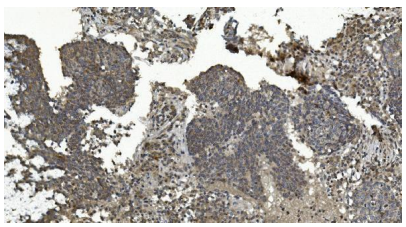
Anti-ERK5/MAPK7 Antibody Picoband® (A02812-3) Images



Western blot analysis of ERK5/MAPK7 using anti-ERK5/MAPK7 antibody (A02812-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human Hek293 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: monkey Cos-7 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: mouse brain tissue lysates, Lane 7: mouse NIH/3T3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ERK5/MAPK7 antigen affinity purified polyclonal antibody (Catalog # A02812-3) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ERK5/MAPK7 at approximately 115-120KD. The expected band size for ERK5/MAPK7 is at 88KD.



IHC analysis of ERK5/MAPK7 using anti-ERK5/MAPK7 antibody (A02812-3). ERK5/MAPK7 was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-ERK5/MAPK7 Antibody (A02812-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of ERK5/MAPK7 using anti-ERK5/MAPK7 antibody (A02812-3). ERK5/MAPK7 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-ERK5/MAPK7 Antibody (A02812-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

2 Publications Citing This Product

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1. PubMed ID: 10.1155/2021/6431007, Effects of the Wenyang Zhenshuai Granule on the Expression of LncRNA-MiR143HG/miR-143 Regulating ERK5 in H9C2 Cardiomyocytes

2. PubMed ID: -, Mehrdoost, S., Yaghmaei, P., Jafary, H., Ebrahim-Habibi, A. (2021). The therapeutic effects of berberine plus sitagliptin in a rat model of fatty liver disease. Iranian Journal of Basic Medical Sciences, 24(4), 451-459. doi: 10.22038/ijbms.2021.52239.11822

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Anti-ERK5/MAPK7 Antibody

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