

## Anti-ERK5/MAPK7 Antibody Picoband™

Catalog Number: A02812-4

### 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 extracellular 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.

### Overview

Product Name	Anti-ERK5/MAPK7 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ERK5/MAPK7 Antibody Picoband™ catalog # A02812-4. Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q13164

### Technical Details

Immunogen	E.coli-derived human ERK5/MAPK7 recombinant protein (Position: F363-P816).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.25 ug/ml, Human, Mouse, Rat</p> <p>Direct ELISA, 0.1-0.5 ug/ml, Human</p>

## Anti-ERK5/MAPK7 Antibody Picoband™ (A02812-4) Images

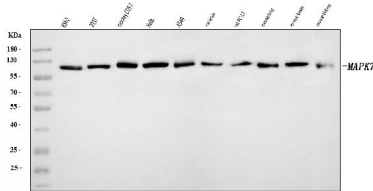


Figure 1. Western blot analysis of ERK5/MAPK7 using anti-ERK5/MAPK7 antibody (A02812-4). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human K562 whole cell lysates,  
Lane 2: human 293T whole cell lysates,  
Lane 3: monkey COS-7 whole cell lysates,  
Lane 4: human Hela whole cell lysates,  
Lane 5: human A549 whole cell lysates,  
Lane 6: rat brain tissue lysates,  
Lane 7: rat PC-12 whole cell lysates,  
Lane 8: mouse lung tissue lysates,  
Lane 9: mouse brain tissue lysates,  
Lane 10: mouse kidney tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 # A02812-4) at 0.25 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 kDa. The expected band size for ERK5/MAPK7 is at 88 kDa.

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