

Rabbit ERK5/MAPK7 Polyclonal Antibody | anti-MAPK7 antibody

Anti-ERK5/MAPK7 Antibody

CATALOG # AAA125672	HOST Rabbit	REACTIVITY Human, Mouse, Rat, Monkey	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

ERK5/MAPK7; Polyclonal Antibody; Anti-ERK5/MAPK7 Antibody; MAPK7; BMK1; ERK5; PRKM7; Mitogen-activated protein kinase 7; MAP kinase 7; MAPK 7; EC 2.7.11.24; Big MAP kinase 1; BMK-1; Extracellular signal-regulated kinase 5; ERK-5; mitogen-activated protein kinase 7; anti-MAPK7 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for ERK5/MAPK7 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-MAPK7 antibody	ELISA (Direct ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human ERK5/MAPK7 recombinant protein (Position: K22-P816).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



IHC (Immunohistochemistry)

Figure 3. IHC analysis of ERK5/MAPK7 using anti-ERK5/MAPK7 antibody (AAA125672). 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 2µg/ml rabbit anti-ERK5/MAPK7 Antibody (AAA125672) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of ERK5/MAPK7 using anti-ERK5/MAPK7 antibody (AAA125672). 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 2µg/ml rabbit anti-ERK5/MAPK7 Antibody (AAA125672) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of ERK5/MAPK7 using anti-ERK5/MAPK7 antibody (AAA125672). 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 # AAA125672) at 0.5 µg/mL overnight at 4 degree 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 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.

ADDITIONAL INFORMATION

Related Product Information for anti-MAPK7 antibody	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.
References	- Hayashi, M., Kim, S. -W., Imanaka-Yoshida, K., Yoshida, T., Abel, E. D., Eliceiri, B., Yang, Y., Ulevitch, R. J., Lee, J. -D. Targeted deletion of BMK1/ERK5 in adult mice perturbs vascular integrity and leads to endothelial failure. J. Clin. Invest. 113: 1138-1148, 2004. - Lee, J. -D., Ulevitch, R. J., Han, J. Primary structure of BMK1: a new mammalian MAP kinase. Biochem. Biophys. Res. Commun. 213: 715-724, 1995. - Purandare, S. M., Lee, J. -D., Patel, P. I. Assignment of big MAP kinase (PRKM7) to human chromosome 17 band p11.2 with somatic cell hybrids. Cytogenet. Cell Genet. 83: 258-259, 1998.

NCBI AND UNIPROT INFORMATION

NCBI GI #	20986497
NCBI GeneID	5598
NCBI Accession #	NP_002740.2
NCBI GenBank Nucleotide #	NM_002749.3
UniProt Accession #	Q13164; Q16634; Q59F50; Q6QLU7; Q7L4P4; Q969G1; Q96G51
Molecular Weight	88,386 Da
NCBI Official Full Name	mitogen-activated protein kinase 7 isoform 1
NCBI Official Synonym Full Names	mitogen-activated protein kinase 7
NCBI Official Symbol	MAPK7
NCBI Official Synonym Symbols	BMK1; ERK4; ERK5; PRKM7
NCBI Protein Information	mitogen-activated protein kinase 7; BMK-1; ERK-5; MAPK 7; BMK1 kinase; MAP kinase 7; big MAP kinase 1; extracellular signal-regulated kinase 5; extracellular-signal-regulated kinase 5

UniProt Protein Name	Mitogen-activated protein kinase 7
UniProt Gene Name	MAPK7
UniProt Synonym Gene Names	BMK1; ERK5; PRKM7; MAP kinase 7; MAPK 7; BMK-1; ERK-5
UniProt Entry Name	MK07_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
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