

Product datasheet for **TA327276**

ERK5 (MAPK7) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	WB 1:500 - 1:2000;IF 1:50- 1:200
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human MAPK7
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	mitogen-activated protein kinase 7
Database Link:	NP_002740 Entrez Gene 23939 Mouse Entrez Gene 114509 Rat Entrez Gene 5598 Human Q13164



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Background:

ERK5 (Mitogen-activated protein kinase 7, Big mitogen-activated protein kinase 1) is a member of the MAPK superfamily implicated in the regulation numerous cellular processes including proliferation, differentiation, and survival. Like other MAPK family members, ERK5 contains a canonical activation loop TEY motif (Thr218/Tyr220) which is specifically phosphorylated by MAP2K5 (MEK5) in a growth factor-dependent, Ras-independent mechanism. For example, EGF stimulation promotes ERK5 phosphorylation which induces its translocation to the nucleus where it phosphorylates MEF2C and other transcriptional targets. ERK5 is also activated in response to granulocyte colony-stimulating factor (G-CSF) in hematopoietic progenitor cells where it promotes survival and proliferation. In neuronal cells, ERK5 is required for NGF-induced neurite outgrowth, neuronal homeostasis, and survival. ERK5 is thought to play a role in blood vessel integrity via maintenance of endothelial cell migration and barrier function. Although broadly expressed, research studies have shown that mice lacking erk5 display numerous cardiac defects, suggesting ERK5 plays a critical role in vascular development and homeostasis.

Synonyms:

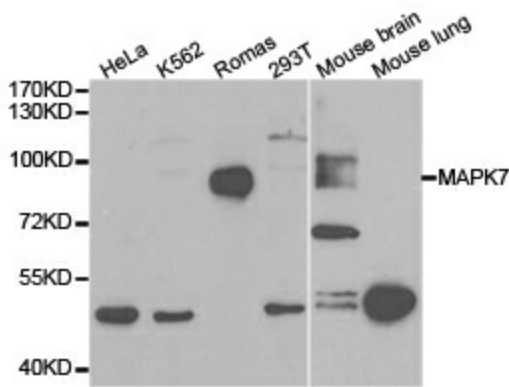
BMK1; ERK4; ERK5; PRKM7

Protein Families:

Druggable Genome, Protein Kinase

Protein Pathways:

Gap junction, GnRH signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway

Product images:

Western blot analysis of extracts of various cell lines, using MAPK7 antibody.