

Product datasheet for **CF502148**

ERK5 (MAPK7) Mouse Monoclonal Antibody [Clone ID: OTI2E2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI2E2
Applications:	FC, IF, WB
Recommended Dilution:	WB 1:2000, IF 1:100, FLOW 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human MAPK7 (NP_002740) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	88.2 kDa
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:

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. [provided by RefSeq]

Synonyms:

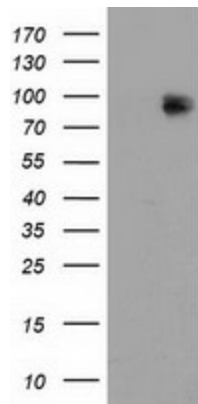
BMK1; ERK4; ERK5; PRKM7

Protein Families:

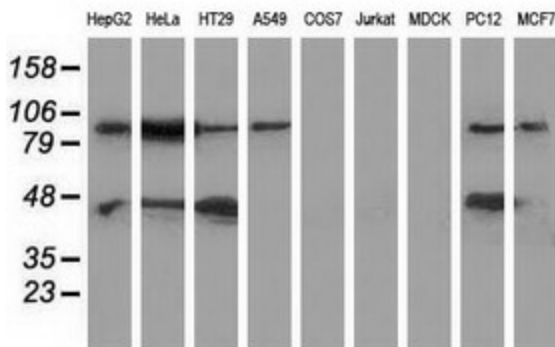
Druggable Genome, Protein Kinase

Protein Pathways:

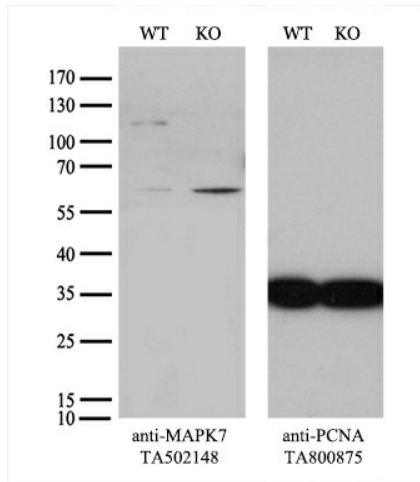
Gap junction, GnRH signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway

Product images:


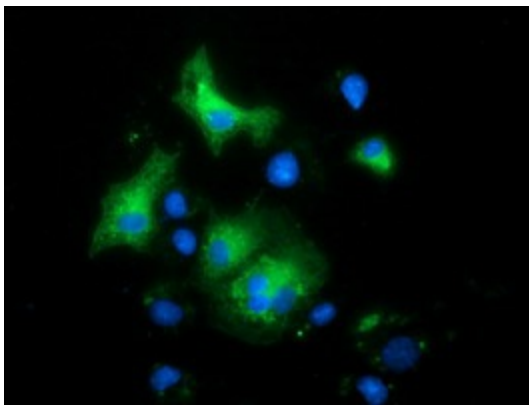
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY MAPK7 ([RC203506], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAPK7. Positive lysates [LY419130] (100ug) and [LC419130] (20ug) can be purchased separately from OriGene.



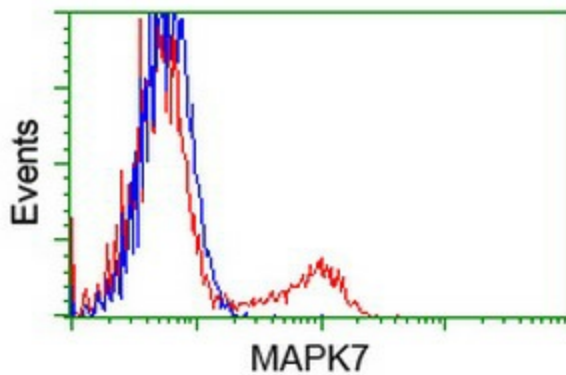
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-MAPK7 monoclonal antibody.



Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and MAPK7-Knockout HeLa cells (KO, Cat# [LC830793]) were separated by SDS-PAGE and immunoblotted with anti-MAPK7 monoclonal antibody [TA502148] (1:200). Then the blotted membrane was stripped and reprobed with anti-PCNA antibody as a loading control.



Anti-MAPK7 mouse monoclonal antibody ([TA502148]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY MAPK7 ([RC203506]).



HEK293T cells transfected with either [RC203506] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-MAPK7 antibody ([TA502148]), and then analyzed by flow cytometry.