ERK5 (PT0140R) PT® Rabbit mAb

CatalogNo: YM8360 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,

Applications
- WB,IF,IP,ELISA

MW
- 88kD (Calculated)

115kD (Observed)

Isotype
- IgG,Kappa

Recommended Dilution Ratios

IHC 1:200-1:1000
WB 1:2000-1:10000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT0140R

Immunogen Information

Specificity	Endogenous

Target Information

Gene name MAPK7,ERK5

Protein Name Mitogen-activated protein kinase 7

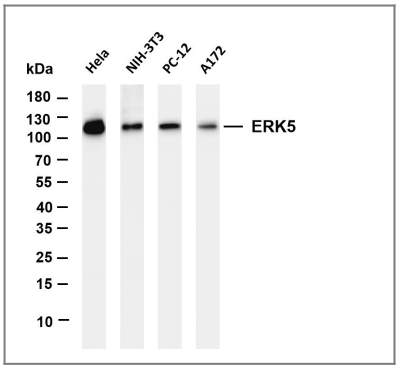
Organism	Gene ID	UniProt ID
Human	25;	Q13164;
Mouse		Q9WVS8;
Rat	311860;	

Cellular Localization Cytoplasm, Nucleus

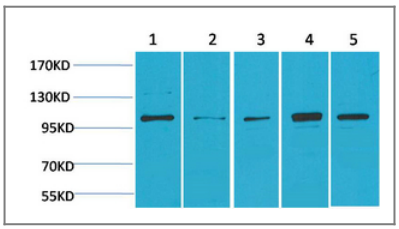
Tissue specificity Widely expressed.

Function Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,domain:The second proline-rich region may interact with actin targeting the kinase to a specific location in the cell.,domain:The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.,enzyme regulation:Activated by tyrosine and threonine phosphorylation (By similarity). Activated in response to hyperosmolarity, hydrogen peroxide, and epidermal growth factor (EGF).,Function:Plays a role in various cellular processes such as proliferation, differentiation and cell survival. The upstream activator of MAPK7 is the MAPK kinase MAP2K5. Upon activation, it translocates to the nucleus and phosphorylates various downstream targets including MEF2C. EGF activates MAPK7 through a Ras-independent and MAP2K5-dependent pathway. May have a role in muscle cell differentiation. May be important for endothelial function and maintenance of blood vessel integrity. MAP2K5 and MAPK7 interact specifically with one another and not with MEK1/ERK1 or MEK2/ERK2 pathways.,PTM:Dually phosphorylated on Thr-219 and Tyr-221, which activates the enzyme (By similarity). Autophosphorylated in vitro on threonine and tyrosine residues when the C-terminal part of the kinase, which could have a regulatory role, is absent.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.,similarity:Contains 1 protein kinase domain.,subcellular location:Translocates to the nucleus upon activation.,subunit:Interacts with MAP2K5. Forms oligomers (By similarity). Interacts with MEF2A, MEF2C and MEF2D; the interaction phosphorylates the MEF2s and enhances transcriptional activity of MEF2A, MEF2C but not MEF2D.,tissue specificity:Expressed in many adult tissues. Abundant in heart, placenta, lung, kidney and skeletal muscle. Not detectable in liver.,

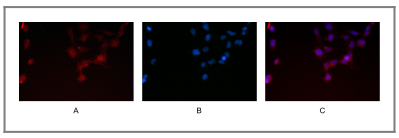
Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-ERK5 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Hela Lane 2: NIH-3T3 Lane 3: PC-12 Lane 4: A172 Predicted band size: 88kDa Observed band size: 115kDa



Western blot analysis of 1) Hela, 2) 293T, 3) Mouse Skeletal Muscle, 4) Rat Kidney, 5) Rat Skeletal Muscle using ERK 5 Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunofluorescence analysis of HEK293. Picture A: ERK5 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

Contact information

Orders:	order@immunoway.com
Support:	tech@immunoway.com
Telephone:	877-594-3616 (Toll Free), 408-747-0185
Website:	http://www.immunoway.com
Address:	2200 Ringwood Ave San Jose, CA 95131 USA

Please scan the QR code to access additional product information:
ERK5 (PT0140R) PT® Rabbit mAb