

**ERK5 (PT0556R) PT® Rabbit mAb**

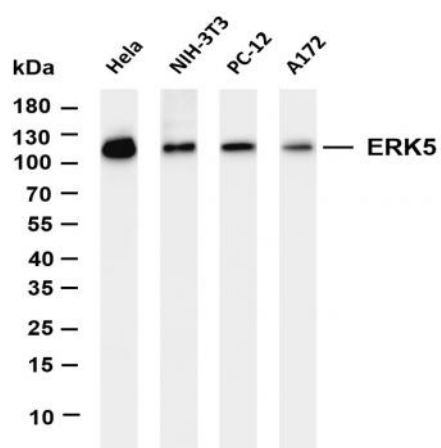
|                              |   |
|------------------------------|---|
| <b>Catalog No :</b>          | YM8375  |
| <b>Reactivity :</b>          | Human; Mouse; Rat;  |
| <b>Applications :</b>        | WB;IF;IP;ELISA  |
| <b>Target :</b>              | ERK 5   |
| <b>Fields :</b>              | >>MAPK signaling pathway;>>Gap junction;>>IL-17 signaling pathway;>>Neurotrophin signaling pathway;>>GnRH signaling pathway;>>Oxytocin signaling pathway;>>MicroRNAs in cancer;>>Fluid shear stress and atherosclerosis |
| <b>Gene Name :</b>           | MAPK7,ERK5  |
| <b>Protein Name :</b>        | Mitogen-activated protein kinase 7  |
| <b>Human Gene Id :</b>       | 5598  |
| <b>Human Swiss Prot No :</b> | Q13164  |
| <b>Mouse Swiss Prot No :</b> | Q9WVS8  |
| <b>Rat Swiss Prot No :</b>   | P0C865  |
| <b>Specificity :</b>         | endogenous  |
| <b>Formulation :</b>         | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA  |
| <b>Source :</b>              | Monoclonal, rabbit, IgG, Kappa  |
| <b>Dilution :</b>            | IHC ;WB 1:2000-1:10000;IF 1:200-1:1000;ELISA 1:5000-1:20000;IP 1:50-1:200;  |
| <b>Purification :</b>        | Protein A   |
| <b>Storage Stability :</b>   | -15°C to -25°C/1 year(Do not lower than -25°C)  |

---

|                               |   |
|-------------------------------|---|
| <b>Molecularweight :</b>      | 88kD  |
| <b>Observed Band :</b>        | 115kD   |
| <b>Cell Pathway :</b>         | MAPK_ERK_Growth;MAPK_G_Protein;Gap junction;Neurotrophin;GnRH;  |
| <b>Background :</b>           | <p>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, Jul 2008],</p>   |
| <b>Function :</b>             | <p>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</p> |
| <b>Subcellular Location :</b> | Cytoplasm, Nucleus  |
| <b>Expression :</b>           | Expressed in many adult tissues. Abundant in heart, placenta, lung, kidney and skeletal muscle. Not detectable in liver.  |

---

## Products Images



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-ERK5 (PT0556R) 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