

# AB-PK622

## ERK2-pT185+pY187 Antibody

Phosphosite-specific polyclonal antibody for monitoring the phosphorylation of human protein-serine/threonine kinase ERK2 (MAPK1)



**KINEXUS**

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### Target Protein

<b>Name Long:</b>	Extracellular regulated protein-serine kinase 2 (p42 MAP kinase)
<b>Alias:</b>	ERK; ERK-2; ERT1; Extracellular signal regulated kinase 2; Kinase ERK2; MAP kinase 2; MAP kinase isoform p42; MAPK; MAPK 2; PRKM2; p41mapk; CCDS13795.1; ENSG00000100030
<b>UniProt ID:</b>	P28482
<b>Sequence Predicted Mass (KDa):</b>	41.390 (360 AA; P28482); 36.432 (316 AA; P28482-2)
<b>Observed SDS-PAGE Mass (KDa):</b>	40-44

### Immunogen

<b>Antibody Immunogen Source:</b>	Human ERK2 (MAPK1) sequence peptide Cat. No.: PE-04AGD95
<b>Antibody Immunogen Sequence:</b>	GFL(pT)E(pY)V(bA)C (bA) = beta-alanine
<b>Location in Target:</b>	Corresponds to amino acid residues G182 to V188; In the protein kinase catalytic domain activation T loop region between subdomains VII and VIII.
<b>Peptide Type:</b>	For phosphosite-specific recognition of target.
<b>Target Phosphosite:</b>	Thr-185+Tyr-187

### Production

<b>Antibody Host Species:</b>	Rabbit
<b>Antibody Type:</b>	Polyclonal
<b>Antibody Ig Isotype Clone Lot:</b>	Immunoglobulin G
<b>Production Method:</b>	The immunizing peptide was produced by solid phase synthesis on a multipеп peptide synthesizer and purified by reverse-phase hplc chromatography. Purity was assessed by analytical hplc and the amino acid sequence confirmed by mass spectrometry analysis. This peptide was coupled to KLH prior to immunization into rabbits. New Zealand White rabbits were subcutaneously injected with KLH-coupled immunizing peptide every 4 weeks for 4 months. The sera from each animal was applied onto an agarose column to which the immunogen peptide was thio-linked. Antibody was eluted from the column with 0.1 M glycine, pH 2.5. Subsequently, the antibody solution was neutralized to pH 7.0 with saturated Tris. This antibody was also subject to negative purification over phosphotyrosine-agarose.
<b>Antibody Amount:</b>	25 µg
<b>Antibody Concentration:</b>	1 mg/ml
<b>Lot Number:</b>	150115
<b>Storage Buffer:</b>	Phosphate buffered saline (PBS) pH7.4, 0.05% Thimerazol
<b>Storage Conditions and Stability:</b>	For long term storage, keep frozen at -40°C or lower. Stock solution can be kept at +4°C for more than 3 months. Avoid repeated freeze-thaw cycles.

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### Applications

<b>Product Use:</b>	Western blotting   Antibody microarrays
<b>Antibody Dilution Recommended:</b>	2 µg/ml for immunoblotting
<b>Antibody Species Reactivity:</b>	Human, mouse, rat and many other vertebrates; Phosphosite is highly conserved in diverse species
<b>Antibody Positive Controls:</b>	Medium immunoreactivity with immunogen peptide on dot blots. Very strong immunoreactivity with recombinant human ERK2 on protein dot blots.
<b>Detection by Immunoblotting in Cell/Tissue Lysates:</b>	Strong immunoreactivity of a target-sized protein by Western blotting in maturing sea star oocyte and A431 cells. It also detects in ERK1 and ERK2 in A549, HeLa, and MCF7 cells.
<b>Overall Antibody Specificity:</b>	Very high selectivity
<b>Antibody Cross Reactivities:</b>	Weak immunoreactivity on protein dot blots with a recombinant human ERK2 preparation and strong immunoreactivity with recombinant human ERK5. Immunoreacts with both phospho-ERK1 and phospho-ERK2. No other significant cross-reactivities were detected in maturing sea star oocytes and A431, A549, HeLa and MCF7 cells.

This product is for in vitro research use only and is not intended for use in humans or animals.

For more information on our products please visit [www.kinexusproducts.ca](http://www.kinexusproducts.ca) or contact us at 1-866-KINEXUS(546-3987)