

## Product datasheet for **AP01886PU-N**

### **ERK1 / ERK2 pTyr204 Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western Blot:</b> 1/500-1/1000. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200. <b>Immunofluorescence:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic phosphopeptide derived from human ERK1/2 around the phosphorylation site of Tyrosine 204.
Specificity:	This antibody detects endogenous levels of ERK1/2 protein when phosphorylated at Tyr204.
Formulation:	Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative. State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE).
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Predicted Protein Size:	~ 44,42 kDa

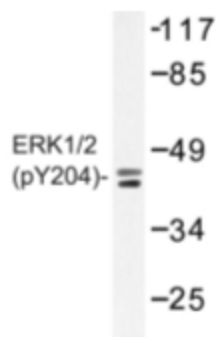
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**Background:**

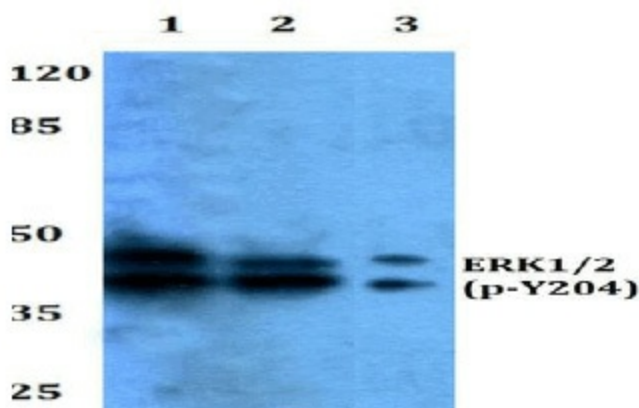
The activation of signal transduction pathways by growth factors, hormones and neurotransmitters is mediated through two closely related MAP kinases, p44 and p42, designated extracellular-signal related kinase 1 (ERK 1) and ERK 2, respectively. ERK proteins are regulated by dual phosphorylation at Tyrosine 204 and 187 and Threonine 177 and 160 residues mapping within a characteristic Thr-Glu-Tyr motif. Phosphorylation at both the Threonine 202 and Tyrosine 204 residues of ERK 1 and Threonine 185 and Tyrosine 187 residues of ERK 2 is required for full enzymatic activation. The structural consequences of dual phosphorylation in ERK 2 include active site closure, alignment of key catalytic residues that interact with ATP, and remodeling of the activation loop. In response to activation, MAP kinases phosphorylate downstream components on serine and threonine. Upstream MAP kinase regulators include MAP kinase kinase (MEK), MEK kinase and Raf-1. The ERK family has three additional members: ERK 3, ERK 5 and ERK 6.

**Synonyms:**

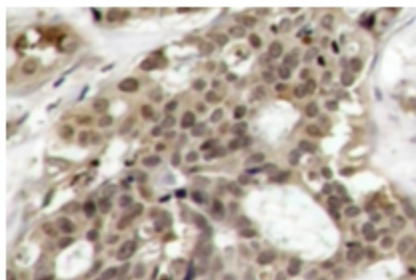
ERK-1/ERK-2, MAPK1/MAPK2, P42/P44-MAPK

**Product images:**


Western blot (WB) analysis of ERK1/2 (pTyr204) antibody (Cat.-No.: AP01886PU-N) in extracts from HeLa cells treated with PMA.



Western blot (WB) analysis of ERK1/2 (pTyr204) antibody (Cat.-No.: AP01886PU-N) at 1/500 dilution in: Lane 1: HEK293T whole cell lysate treated with PMA (100nM, 15mins). Lane 2: sp2/0 whole cell lysate treated with PMA (100nM, 15mins). Lane 3: PC12 whole cell



Immunohistochemistry (IHC) analyzes of ERK1/2 (pTyr204) antibody (Cat.-No.: AP01886PU-N) in paraffin-embedded human breast carcinoma tissue.