

AP01886PU-N**Polyclonal Antibody to ERK1 / ERK2 pTyr204 - Aff - Purified****Alternate names:**

ERK-1/ERK-2, Extracellular signal regulated kinase 1/2, Insulin stimulated MAP2 kinase, MAPK1/MAPK2, Microtubule associated protein 2 kinase, Mitogen activated protein kinase 1/2/3, P42/P44-MAPK

Quantity:

0.1 mg

Concentration:

1.0 mg/ml

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.

Host:

Rabbit

Immunogen:

Synthetic phosphopeptide derived from human ERK1/2 around the phosphorylation site of Tyrosine 204.

Format:

State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE).

Purification: Affinity Chromatography using epitope-specific immunogen.

Buffer System: Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative.

Applications:

Western Blot: 1/500-1/1000.

Immunohistochemistry on Paraffin Sections: 1/50-1/200.

Immunofluorescence: 1/50-1/200.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Molecular Weight:

~ 44,42 kDa

Specificity:

This antibody detects endogenous levels of ERK1/2 protein when phosphorylated at Tyr204.

Species Reactivity:

Tested: Human.

Expected from sequence similarity: Mouse and Rat.

Storage:

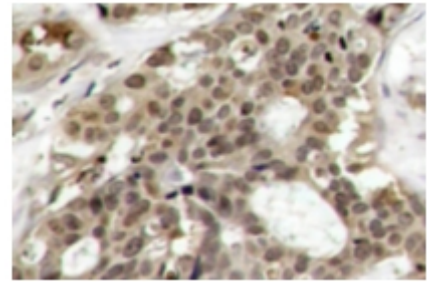
Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

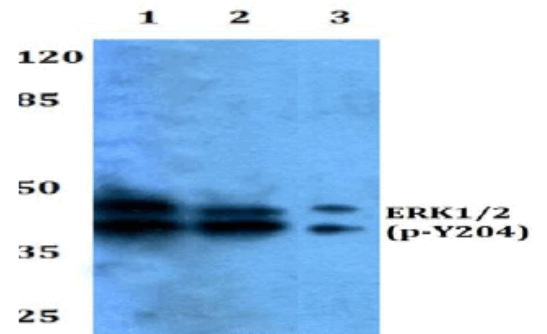
Shelf life: One year from despatch.

Pictures:

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



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 lysate treated with PMA (100nM, 15mins).



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

