

ERK1/2 (phospho-Y204) polyclonal antibody

Catalog: BCP00745

Host: Rabbit

Reactivity: Human, Mouse, Rat

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 ERK1 and Threonine 185 and Tyrosine 187 residues of ERK2 is required for full enzymatic activation. The structural consequences of dual-phosphorylation in the ERK2 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.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

~ 42,44 kDa

Swiss-Prot:

P27361/P28482

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB: 1:500~1:1000

IHC: 1:50~1:200

IF: 1:50~1:200

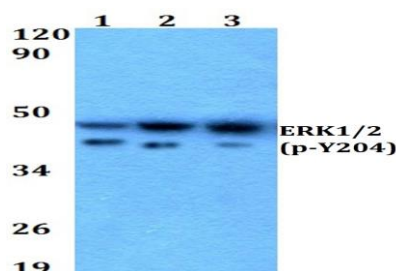
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

p-ERK1/2 (Y204) polyclonal antibody detects endogenous levels of ERK1 protein when phosphorylated at Tyr204, and ERK2 protein when phosphorylated at Tyr187.

DATA:

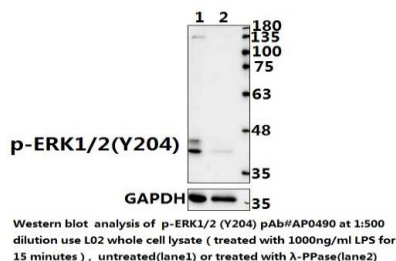


Western blot (WB) analysis of p-ERK1/2 (Y204) polyclonal antibody at 1:500 dilution

Lane1:HeLa whole cell lysate treated with UV(4h)

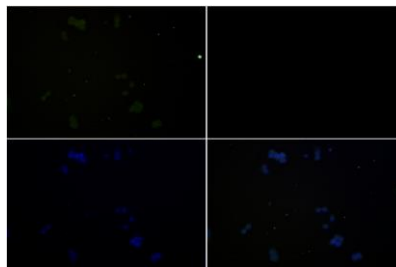
Lane2:NIH-3T3 whole cell lysate treated with UV(4h)

Lane3:PC12 whole cell lysate treated with UV(4h)

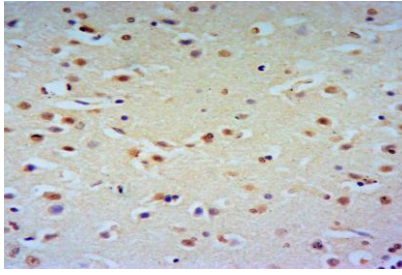


Western blot analysis of p-ERK1/2 (Y204) pAb/AP0490 at 1:500 dilution use LO2 whole cell lysate (treated with 1000ng/ml LPS for 15 minutes), untreated(lane1) or treated with λ-PPase(lane2)

LO2 cell, treated with LPS(1000ng/ml) for 15 minutes, untreated or λ phosphatase-treated.The western blot was probed using p-ERK1/2 (Y204) pAb #AP0490 at 1:500 dilution.



Immunofluorescence analysis of HEK293T cells using p-ERK1/2 (Y204) antibody at dilution of 1:50.



Immunohistochemistry of paraffin-embedded Rat Brain using p-ERK1/2 (Y204) antibody at dilution of 1:50.

Note:

For research use only, not for use in diagnostic procedure.