ERK1/2 (phospho-Y204) polyclonal antibody

Catalog: BS4621 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 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.

Product:

1 mg/ml in Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2.

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

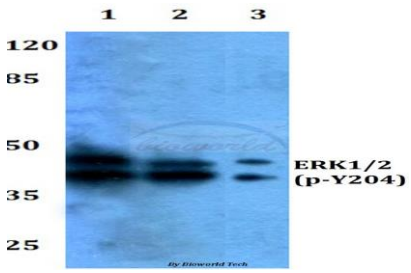
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ 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:

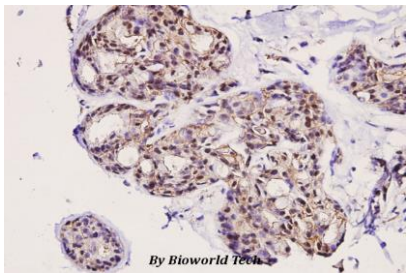


Western blot (WB) analysis of p-ERK1/2 (Y204) polyclonal antibody at 1:500 dilution

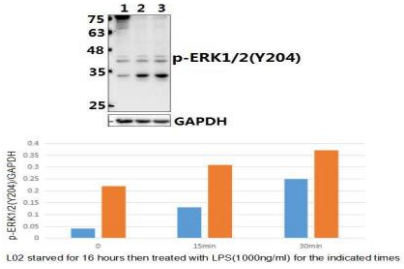
Lane1:HEK293T whole cell lysate treated with PMA(100nM,15mins)

Lane2:sp2/0 whole cell lysate treated with PMA(100nM,15mins)

Lane3:PC12 whole cell lysate treated with PMA(100nM,15mins)



Immunohistochemistry (IHC) analyzes of p-ERK1/2 (Y204) pAb in paraffin-embedded human breast carcinoma tissue at 1:100.



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

Lane1:L02 starved for 16 hours whole cell lysate(40ug)

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Lane2:L02 starved for 16 hours then treated with LPS(1000ng/ml) for 15 minutes whole cell lysate

Lane3:L02 starved for 16 hours then treated with LPS(1000ng/ml) for 30 minutes whole cell lysate

Note:

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

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