

AMPK α 1/2 (phospho-T183/172) polyclonal antibody

Catalog: BS4457

Host: Rabbit

Reactivity: Human, Mouse, Rat

Background:

AMPK is a heterotrimeric complex comprising a catalytic α subunit and regulatory β and γ subunits. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. AMPK is activated by high AMP and low ATP through a mechanism involving allosteric regulation, promotion of phosphorylation by an upstream protein kinase known as AMPK kinase, and inhibition of dephosphorylation. Activated AMPK can phosphorylate and regulate in vivo hydroxymethylglutaryl-CoA reductase and acetyl-CoA carboxylase, which are key regulatory enzymes of sterol synthesis and fatty acid synthesis, respectively. The human AMPK α 1 and AMPK α 2 genes encode 548 amino acid and 552 amino acid proteins, respectively. Human AMPK β 1 encodes a 271 amino acid protein and human AMPK β 2 encodes a 272 amino acid protein. The human AMPK γ 1 gene encodes a 331 amino acid protein. Human AMPK γ 2 and AMPK γ 3, which are 569 and 492 amino acid proteins, respectively, contain unique N-terminal domains and may participate directly in the binding of AMP within the AMPK complex.

Product:

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

Molecular Weight:

~ 63 kDa

Swiss-Prot:

Q13131/P54646

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

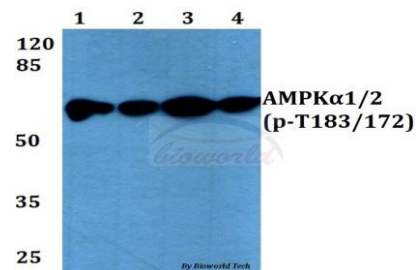
Storage&Stability:

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

Specificity:

p-AMPK α 1/2 (T183/172) polyclonal antibody detects endogenous levels of AMPK α 1 protein only when phosphorylated at Thr183 and AMPK α 2 protein only when phosphorylated at Thr172.

DATA:



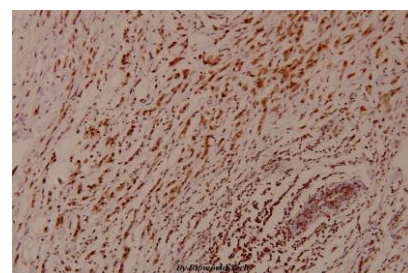
Western blot (WB) analysis of p-AMPK α 1/2 (T183/172) polyclonal antibody at 1:500 dilution

Lane1:HEK293T cell lysate treated with UV(4h)

Lane2:Raw264.7 cell lysate treated with UV(4h)

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

Lane4:H9C2 cell lysate treated with UV(4h)



Immunohistochemistry (IHC) analyzes of p-AMPK α 1/2 (T183/172) pAb in paraffin-embedded human breast carcinoma tissue at 1:100.

Note:

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

Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416, USA.

Email: info@bioworld.com

Tel: 6123263284

Fax: 6122933841

Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China.

Email: info@biogot.com

Tel: 0086-025-68037686

Fax: 0086-025-68035151



PRODUCT DATA SHEET

Bioworld Technology, Inc.

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Add: 1660 South Highway 100, Suite 500 St. Louis Park,
MN 55416, USA.

Email: info@bioworld.com

Tel: 6123263284

Fax: 6122933841

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