bs-4630R **[Primary Antibody]**

phospho-ROCK1 (Thr455+Ser456) Rabbit pAb

www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 6093 **SWISS:** Q13464

Target: ROCK1 (Thr455+Ser456)

Immunogen: KLH conjugated synthesised phosphopeptide derived from human ROCK1 around the phosphorylation site of Thr455+Ser456: CR(p-T)(p-S)N.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: This gene encodes a protein serine/threonine kinase that is activated when bound to the GTP-bound form of Rho. The small GTPase Rho regulates formation of focal adhesions and stress fibers of fibroblasts, as well as adhesion and aggregation of platelets and lymphocytes by shuttling between the inactive GDP-bound form and the active GTP-bound form. Rho is also essential in cytokinesis and plays a role in transcriptional activation by serum response factor. This protein, a downstream effector of Rho, phosphorylates and activates LIM kinase, which in turn, phosphorylates cofilin, inhibiting its actin-depolymerizing activity. [provided by RefSeq].

Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/Test)

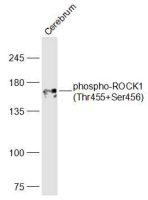
Reactivity: Human, Mouse (predicted: Rat, Rabbit, Pig, Dog, Horse)

Predicted MW.: 158 kDa

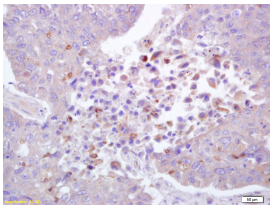
Observed MW.: 158 kDa

Subcellular Location: Cell membrane ,Cytoplasm

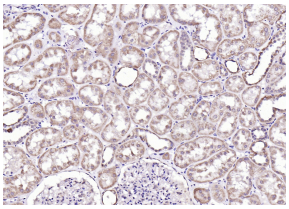
VALIDATION IMAGES



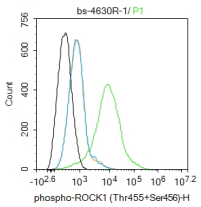
Sample: Cerebrum (Mouse) Lysate at 40 ug Primary: Anti-phospho-ROCK1(Thr455+Ser456) (bs-4630R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 158 kD Observed band size: 158 kD



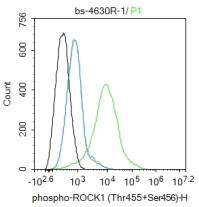
Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-phospho-ROCK1(Thr455/Ser456) Polyclonal Antibody, Unconjugated(bs-4630R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-ROCK1 (Thr455+Ser456)) Polyclonal Antibody, Unconjugated (bs-4630R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Blank control:MCF-7. Primary Antibody (green



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Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

line): Rabbit Anti-phospho-ROCK1 (Thr455+Ser456) antibody (bs-4630R) Dilution: 1ug/Test; Secondary Antibody (white blue line) : Goat anti-rabbit IgG-BF488 Dilution: 0.5ug/Test. Isotype control（orange line）： Normal Rabbit IgG Protocol The cells were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

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SELECTED CITATIONS

- **[IF=42.5]** Yan Hu. et al. Selective targeting of endothelial and perivascular angiocrine ROCK2 treats liver fibrosis. CELL. 2026 Mar mIF ;Human. 41794026
- **[IF=12.8]** Xuening Pang. et al. LDH nanoparticles-doped cellulose nanofiber scaffolds with aligned microchannels direct high-efficiency neural regeneration and organized neural circuit remodeling through RhoA/Rock/Myosin II pathway. BIOMATERIALS. 2025 Mar;314:122873 WB ;Mouse. 39369670
- **[IF=6.7]** Zhizhongbin Wu. et al. Long term Coptidis Rhizoma intake induce gastrointestinal emptying inhibition and colon barrier weaken via bitter taste receptors activation in mice. PHYTOMEDICINE. 2024 Nov;:156292 WB ;Human. 39631296
- **[IF=6.162]** Zhou Y et al. ROCK2 Confers Acquired Gemcitabine Resistance in Pancreatic Cancer Cells by Upregulating Transcription Factor ZEB1. Cancers (Basel). 2019 Nov 27;11(12). pii: E1881. WB ;Human. 31783584
- **[IF=4.566]** Xu Jiahui. et al. Temperature and Growth Selection Effects on Proliferation, Differentiation, and Adipogenic Potential of Turkey Myogenic Satellite Cells Through Frizzled-7-Mediated Wnt Planar Cell Polarity Pathway. FRONT PHYSIOL. 2022 May;0:889 WB ;Chicken. 35677087

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