Anti-Actin Antibody

Catalog #: 125-ACT  Size: 100 µl
Isotype: IgG1  Clone: C4

Cite this Antibody: PhosphoSolutions Cat# 125-ACT, RRID:AB_2492035

**Host**  **Applications**  **Species Tested**  **Species Assumed**  **Molecular Reference**
Mouse  WB  1:5000  All  ~42 kDa
IHC  1:500
IF  1:500

**Product Description:** Mouse monoclonal antibody.

**Biological Significance:** Actin is the most abundant protein found in virtually all eukaryotic cells. It is also one of the most highly-conserved proteins, differing by no more than 20% in species as diverse as algae and humans, making it an excellent choice for use as a loading control. It is the monomeric subunit of microfilaments, one of the three major components of the cytoskeleton, and of thin filaments, which are part of the contractile apparatus in muscle cells. Thus, actin participates in many important cellular functions, including muscle contraction, cell motility, cell division and cytokinesis, vesicle and organelle movement, cell signaling, and the establishment and maintenance of cell junctions and cell shape.

**Antigen:** Chicken gizzard actin.

**Antibody Specificity:** Specific for endogenous levels of the ~42 kDa actin protein. Reacts with all actin isoforms.

**Purification Method:** Unpurified ascites fluid.

**Quality Control Tests:** Western blots performed on each lot.

**Packaging:** 100 µl liquid + 10 mM sodium azide.

**Storage and Stability:** Shipped on blue ice. Store at −20°C in undiluted aliquots; stable for at least 1 year. Avoid freeze/thaw cycles.

**Western blot of rat hippocampal lysate showing specific immunolabeling of the ~42 kDa actin protein.**

**Immunofluorescence staining of human blood-brain barrier endothelial cells (HMEC3) showing specific labeling of actin in red. Cell nuclei are visualized in blue with DAPI DNA stain. Fluorescently labeled intracellular protein is labeled in green.**

Photo credit of Yancy Ferrer-Acosta/Henrique Martins, Universidad Central Del Caribe, PR.

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**Application Key:** WB = Western Blot  IF = Immunofluorescence  IHC = Immunohistochemistry  IP = Immunoprecipitation

**Species Reactivity Key:** All-All Species  A-Avian  Amp-Amphibian  Ar-Arabidopsis  B-Bovine  C-Canine  Ch-Chicken  D-Drosophila  GP-Guinea Pig  H-Human  Ha-Hamster  M-Mouse  NHP-Non-human primate  P-Pig  R-Rat  S-Sheep  X-Xenopus  Z-Zebrafish

*Species assumed based on 100% homology with sequence used as antigen*
Product Specific References:


General Reference: