

ACTA2

Reactivity:Human Mouse Rat

Tested applications:WB IHC ICC FC

Recommended Dilution:WB 1:500 - 1:2000 IHC 1:50 - 1:200 ICC 1:50 - 1:200 FC 1:50 - 1:200

Calculated MW:42kDa

Observed MW:Refer to Figures

Immunogen:

A synthetic peptide of human ACTA2

Storage Buffer:

Store at -20. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Synonym:

AAT6; ACTSA; -Smooth Muscle Actin;

Background:

Actin, a ubiquitous eukaryotic protein, is the major component of the cytoskeleton. At least six isoforms are known in mammals. Nonmuscle - and -actin, also known as cytoplasmic actin, are predominantly expressed in nonmuscle cells, controlling cell structure and motility (1). -cardiac and -skeletal actin are expressed in striated cardiac and skeletal muscles, respectively; two smooth muscle actins, - and -actin, are found primarily in vascular smooth muscle and enteric smooth muscle, respectively. These actin isoforms regulate the contractile potential of muscle cells (1). Actin exists mainly as a fibrous polymer, F-actin. In response to cytoskeletal reorganizing signals during processes such as cytokinesis, endocytosis, or stress, cofilin promotes fragmentation and depolymerization of F-actin, resulting in an increase in the monomeric globular form, G-actin (2). The ARP2/3 complex stabilizes F-actin fragments and promotes formation of new actin filaments (2). Research studies have shown that actin is hyperphosphorylated in primary breast tumors (3). Cleavage of actin under apoptotic conditions has been observed in vitro and in cardiac and skeletal muscle, as shown in research studies (4-6). Actin cleavage by caspase-3 may accelerate ubiquitin/proteasome-dependent muscle proteolysis (6).

To place an order, please [Click HERE](#).

Catalog #:A2625

Antibody Type:

Monoclonal Antibody

Species:Mouse

Gene ID:59

Isotype:IgG

Swiss Prot:P62736

Purity:Affinity purification

For research use only.