

β-Actin (4E8H3): sc-130065

BACKGROUND

All eukaryotic cells express actin, which often constitutes as much as 50% of total cellular protein. Actin filaments can form both stable and labile structures and are crucial components of microvilli and the contractile apparatus of muscle cells. While lower eukaryotes, such as yeast, have only one Actin gene, higher eukaryotes have several isoforms encoded by a family of genes. α -Actin expression is limited to various types of muscle, whereas β -Actin and γ -Actin are the principle constituents of filaments in other tissues. Members of the small GTPase family regulate the organization of the Actin cytoskeleton. Rho controls the assembly of Actin stress fibers and focal adhesion. Rac regulates Actin filament accumulation at the plasma membrane. Cdc42 stimulates formation of filopodia.

CHROMOSOMAL LOCATION

Genetic locus: ACTB (human) mapping to 7p22.1; Actb (mouse) mapping to 5 G2.

SOURCE

β-Actin (4E8H3) is a mouse monoclonal antibody raised against a peptide mapping at the N-terminus of β-Actin of human origin.

PRODUCT

Each vial contains 200 μg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

β-Actin (4E8H3) is recommended for detection of β-Actin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for β-Actin siRNA (h): sc-108069, β-Actin siRNA (m): sc-108070, β-Actin siRNA (r): sc-156106, β-Actin shRNA Plasmid (h): sc-108069-SH, β-Actin shRNA Plasmid (m): sc-108070-SH, β-Actin shRNA Plasmid (r): sc-156106-SH, β-Actin shRNA (h) Lentiviral Particles: sc-108069-V, β-Actin shRNA (m) Lentiviral Particles: sc-108070-V and β-Actin shRNA (r) Lentiviral Particles: sc-156106-V.

Molecular Weight of β-Actin: 43 kDa.

Molecular Weight of β-Actin C-terminal region: 15 kDa.

Positive Controls: C32 whole cell lysate: sc-2205, HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

RESEARCH USE

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

SELECT PRODUCT CITATIONS

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See **β-Actin (C4): sc-47778** for β-Actin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.