Data Sheet (Cat.No.TMAY-00016)

Beta-Actin Loading Control Antibody (4L34)

Product Details

Ig Type:	Mouse IgG2a
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4L34
Purification:	Protein A

Applications

Verified Activity:

1. Anti-beta-Actin mouse monoclonal antibody at 1:2500 dilution.
-Lane A: HepG2 Whole Cell Lysate.
-Lane B: NIH3T3 Whole Cell Lysate.
-Lane C: RAW264.7 Whole Cell Lysate.
-Lane D: Mouse slpeen tissue Lysate.
-Lane E: Mouse lung tissue Lysate.
-Lane F: Mouse brain tissue Lysate.
-Lane G: C6 whole cell Lysate.
-Lane H: PC-12 whole cell Lysate.
-Lane I: Rat liver tissue Lysate.
-Lane J: Rat lung tissue Lysate.
-Lane K: Rat brain tissue lysate.
-Lysates/proteins at 30 µg per lane.
-Secondary
-HRP Conjugated Goat anti-Mouse IgG (H+L) , at 1:10000 dilution.
-Developed using the ECL technique.
-Performed under reducing conditions.
-Predicted band size:43 kDa.
-Observed band size:44 kDa.
2. Anti-beta-Actin mouse monoclonal antibody at 1:2500 dilution.
-Lane A: HeLa Whole Cell Lysate.
-Lane B: Jurkat Whole Cell Lysate.
-Lane C: MCF7 Whole Cell Lysate.
-Lane D: A431 Whole Cell lysate.
-Lysates/proteins at 30 µg per lane.
-Secondary
-Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution.
-Developed using the Odyssey technique.
-Performed under reducing conditions.
-Predicted band size:43 kDa.
-Observed band size:44 kDa.
3. ACTB was immunoprecipitated using:
-Lane A:0.5 mg Hela Whole Cell Lysate
-0.5 µL anti-ACTB mouse monoclonal antibody and 60 µg of Immunomagnetic beads Protein G.
-Primary antibody:
-Anti-ACTB mouse monoclonal antibody, at 1:100 dilution.

-Secondary antibody:
-Dylight 800-labeled antibody to Mouse IgG (H+L), at 1:7500 dilution.
-Developed using the odyssey technique.
-Performed under reducing conditions.
-Predicted band size: 42 kDa.
-Observed band size: 42 kDa.
4. Anti-beta-Actin mouse monoclonal antibody at 1:10000, 1:50000, 1:100000, 1:200000 dilution
-Lysates/proteins per lane
-HepG2 (30 µg), Hela (5 µg), Raw246.7 (30 µg)
-Secondary
-Rabbit Anti-Mouse IgG F(ab)2/HRP at 1/10000 dilution.
-Developed using the ECL technique.
-Performed under reducing conditions.
-Predicted band size: 43 kDa.
-Observed band size: 44 kDa

Application: IP,WB

Recommended: WB: 1:2500-1:200000; IP: 1-2 µL/mg of lysate

Properties

Stability & Storage: Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: A synthetic peptide: N-terminus of the Human beta Actin / ACTB

Antigen Species: Human

Research Background

ACTB (Actin Beta) is a Protein Coding gene. Diseases associated with ACTB include Dystonia, Juvenile-Onset and Baraitser-Winter Syndrome 1. Among its related pathways are Salivary secretion and Development Slit-Robo signaling. Gene Ontology (GO) annotations related to this gene include identical protein binding and RNA polymerase II proximal promoter sequence-specific DNA binding. An important paralog of this gene is ACTG1. TUBB, HPRT and ACTB were the most stably expressed genes for all analysis groups across meningioma and non-pathological meningeal tissue combined. ACTB, a significant upregulated gene in abdominal aortic aneurysm samples, could be regulated by CLIC4, which was significantly enriched in cell motions. Dystonia-deafness syndrome is a well-known clinical entity, with sensorineural deafness typically manifesting earlier than dystonia. ACTB p. Arg183Trp heterozygosity has been reported in six patients to cause combined infant-onset deafness and dystonia manifesting in adolescence or young adulthood.

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