

## Product datasheet for **TA336770**

### beta Actin (ACTB) Mouse Monoclonal Antibody [Clone ID: 8H10D10]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	8H10D10
Applications:	ELISA, FC, ICC/IF, Immunoblotting, WB
Recommended Dilution:	Flow (Intracellular): 1:200 - 1:400, Western Blot: 1:1000-1:5000, Simple Western: 12.5, Flow Cytometry: 1:200-1:400, ELISA: 1:10000, Immunocytochemistry/ Immunofluorescence: 1:200-1:1000, Immunoblotting
Reactivity:	Human, Mouse, Rat, Primate, Hamster
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Synthetic peptide corresponding to amino-terminal residues of human Beta Actin, conjugated to KLH. [UniProt# P60709]
Formulation:	PBS, 0.03% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Ammonium sulfate precipitation
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	42 kDa
Gene Name:	actin, beta
Database Link:	<a href="#">NP_001092</a> <a href="#">Entrez Gene 11461 MouseEntrez Gene 81822 RatEntrez Gene 60 Human P60709</a>



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**Background:** Beta Actin is one of six different actin isoforms which have been identified. Actins are highly conserved proteins that are involved in cell motility, structure, and integrity. Because Beta Actin is ubiquitously expressed in all eukaryotic cells, it is frequently used as a loading control for assays involving protein detection, such as Western blotting. Antibodies to Beta Actin provide a specific and useful tool in studying the intracellular distribution of Beta Actin and the static and dynamic aspects of the cytoskeleton.

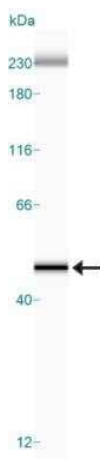
**Synonyms:** BRWS1; PS1TP5BP1

**Note:** This Beta Actin (8H10D10) antibody is useful in Western blot, Flow Cytometry, Immunocytochemistry/Immunofluorescence and ELISA.

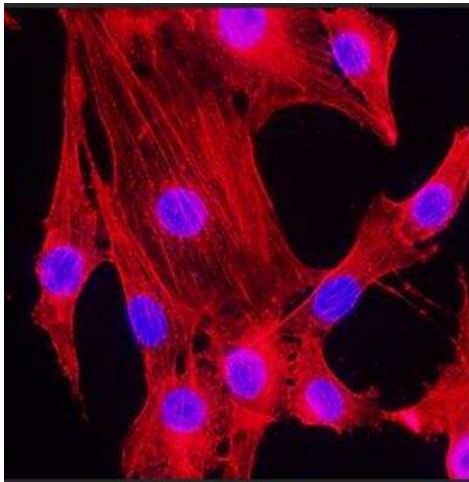
**Protein Families:** ES Cell Differentiation/IPS

**Protein Pathways:** Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Leukocyte transendothelial migration, Pathogenic Escherichia coli infection, Regulation of actin cytoskeleton, Tight junction, Vibrio cholerae infection, Viral myocarditis

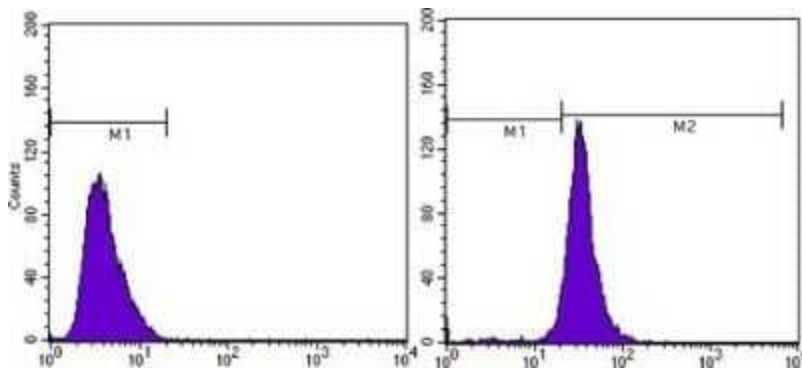
### Product images:



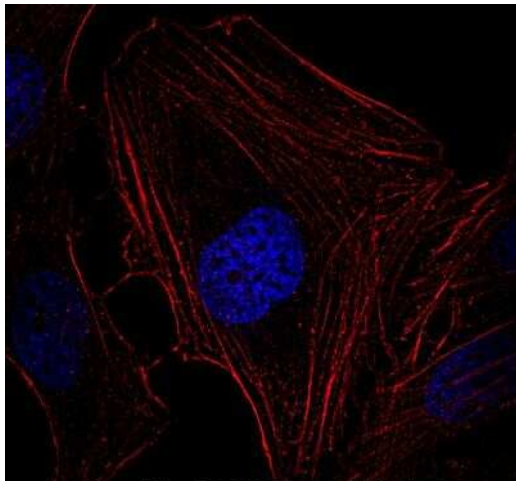
Simple Western: beta-Actin Antibody (8H10D10) TA336770 - Image shows a specific band for Beta Actin in 1.0 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



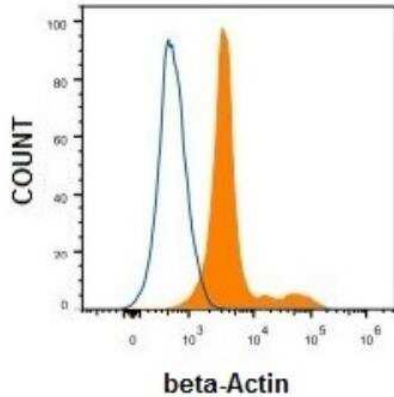
Immunocytochemistry/Immunofluorescence: beta-Actin Antibody (8H10D10) TA336770 - Beta actin was detected in NIH-3T3 cells fixed with methanol using mouse anti-mouse beta-Actin monoclonal antibody (TA336770) at 1:5400 dilution. Cells were stained using NorthernLights 557 conjugated anti-mouse secondary antibody (NL007) and counterstained with DAPI.



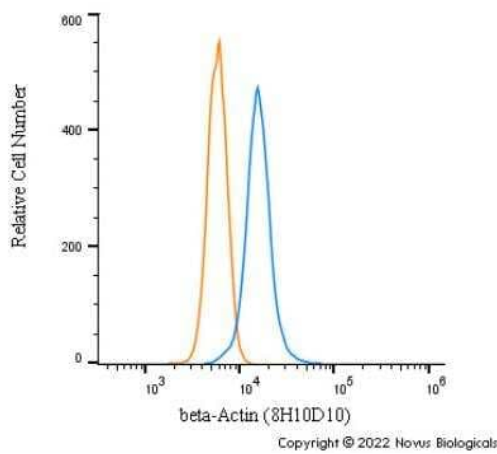
Flow Cytometry: beta-Actin Antibody (8H10D10) TA336770 - Analysis of MCF-7 cells using anti-Beta Actin mAb (right) and negative control (left).



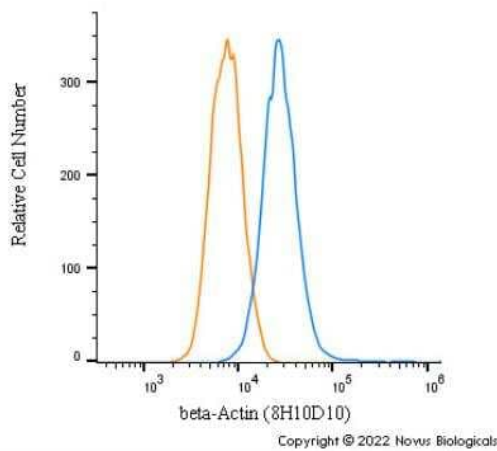
Immunocytochemistry/Immunofluorescence: beta-Actin Antibody (8H10D10) TA336770 - HeLa cells were fixed and permeabilized for 10 minutes with -20C MeOH. The cells were incubated with beta-Actin Antibody [8H10D10] conjugated to Biotin (TA336770B) at 5ug/ml overnight at 4C and detected with Streptavidin conjugated to DyLight 550. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



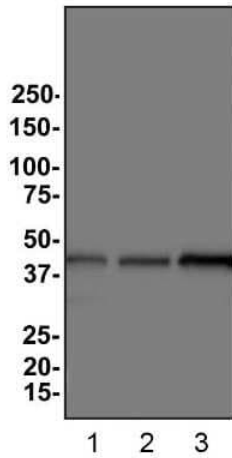
Flow Cytometry: beta-Actin Antibody (8H10D10) TA336770 - Analysis of HeLa cells using mouse Monoclonal beta-Actin antibody (Orange) and Isotype control Antibody (Blue).



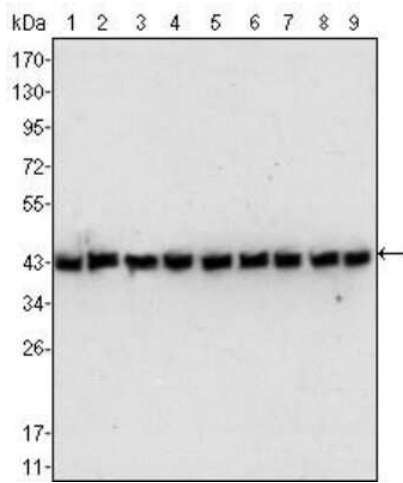
Flow Cytometry: beta-Actin Antibody (8H10D10) - BSA Free TA336770 - An intracellular stain was performed on NIH3T3 cells with beta-Actin Antibody (8H10D10) TA336770 (blue) and a matched isotype control MAB004 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (84540, Thermo Fisher).



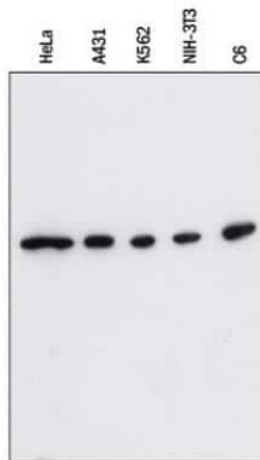
Flow Cytometry: beta-Actin Antibody (8H10D10) - BSA Free TA336770 - An intracellular stain was performed on U-251 MG cells with beta-Actin Antibody (8H10D10) TA336770 (blue) and a matched isotype control MAB004 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (84540, Thermo Fisher).



Western Blot: beta-Actin Antibody (8H10D10) TA336770 - Analysis of Beta Actin expression in 1) HeLa 2) HepG2 and 3) Cos7 whole cell lysates.



Western Blot: beta-Actin Antibody (8H10D10) TA336770 - Analysis using anti-Beta Actin mAb against human, mouse, hamster, rat, and primate cell lysate(s): (1) NIH/3T3, (2) Jurkat, (3) HeLa, (4) CHO, (5) PC12, (6) HEK293, (7) COS, (8) A549, and (9) MCF-7. A specific band can be observed at a molecular weight of approximately 43 kDa in all lanes.



Western Blot: beta-Actin Antibody (8H10D10) TA336770 - Lysates of HeLa human cervical epithelial carcinoma cell line, A431 human epithelial carcinoma cell line, K562 human chronic myelogenous leukemia cell line, NIH-3T3 mouse embryonic fibroblast cell line, and C6 rat glioma cell line were probed with 1:2500 mouse anti-beta-Actin monoclonal (TA336770) followed by 1:2000 dilution of donkey anti-mouse IgG-HRP secondary antibody (HAF018).