

Alexa Fluor[®] 594 anti- β -actin Antibody

Catalog# / Size	643804 / 100 μ g
Clone	2F1-1
Regulatory Status	RUO
Other Names	Actin, cytoplasmic 1
Isotype	Mouse IgG2b, κ
Description	β -actin is a ubiquitously expressed and highly conserved 42 kD cytoplasmic protein involved in cell motility. This critical cytoskeletal component can be disrupted by drugs such as cytochalasin. Because β -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).

Product Details

Verified Reactivity	Human, Mouse, Rat
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor [®] 594 under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICC - Quality tested IHC-P - Verified
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunocytochemistry. For immunocytochemistry, a concentration range of 0.1 - 10 μg/mL is recommended. For immunohistochemical staining on formalin-fixed paraffin-embedded tissue sections, a concentration range of 5.0 - 10 μg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Alexa Fluor[®] 594 has an excitation maximum of 590 nm, and a maximum emission of 617 nm.</p> <p>Alexa Fluor[®] and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p>
Application Notes	The binding of this antibody to its target is sensitive to salt concentration. For consistent results, please use TBS/T buffer for Western blotting that contains 0.15 M NaCl as indicated in the BioLegend recommended protocol .
Application References	<ol style="list-style-type: none">1. Lawson BR, <i>et al.</i> 2007. <i>J. Immunol.</i> 178:5366.2. Joyce CW, <i>et al.</i> 2006. <i>J. Biol. Chem.</i> 281:33053.3. Yanagiya T, <i>et al.</i> 2007. <i>Obesity.</i> 15:572.4. Kishida T, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:8554.5. Ouimet M, <i>et al.</i> 2008. <i>Arterioscler Thromb Vasc Biol.</i> 28:1144.6. Tolitt LJ, <i>et al.</i> 2008. <i>J. Immunol.</i> 181:2165.7. Sawada, T, <i>et al.</i> 2008. <i>J. Biol. Chem.</i> 283:26820.8. Ikeda D, <i>et al.</i> 2008. <i>Endocrinology.</i> 149:6037.9. Ikeda Y, <i>et al.</i> 2010. <i>Mol Endocrinol.</i> 24:1338. PubMed10. Kaieda S, <i>et al.</i> 2010. <i>J. Biol Chem.</i> 285:21478. PubMed11. Cambos M, <i>et al.</i> 2011. <i>J. Leukoc. Biol.</i> 89:157. PubMed
RRID	AB_2565573 (BioLegend Cat. No. 643804)

Antigen Details

Structure	Actin, cytoplasmic 1
Distribution	Ubiquitously expressed in the cytoplasm of all eukaryotic cells
Function	Actins are highly conserved proteins that are involved in cell motility
Biology Area	Cell Biology, Neuroscience, Neuroscience Cell Markers
Molecular Family	Microfilaments
Antigen References	<ol style="list-style-type: none">1. Hanukoglu I, <i>et al.</i> 1983. <i>J. Mol. Biol.</i> 163:673.2. Nakajima-Iijima S, <i>et al.</i> 1985. <i>Proc. Natl. Acad. Sci.</i> 82:6133.3. Ponte P, <i>et al.</i> 1984. <i>Nucleic Acids Res.</i> 12:1687.
Gene ID	11461

Related Protocols

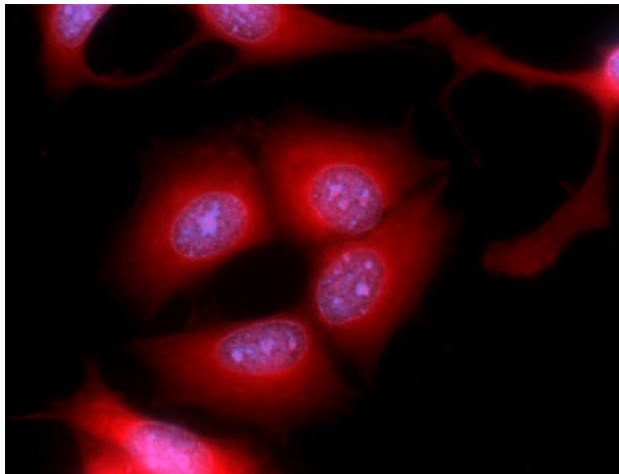
[Immunocytochemistry Staining Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

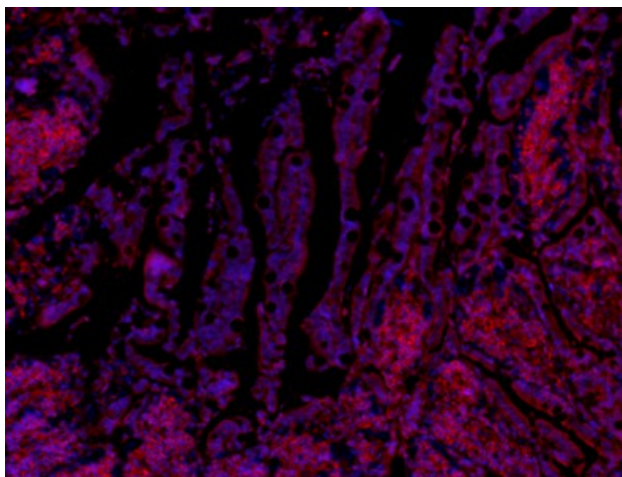
Other Formats

Alexa Fluor® 594 anti- β -actin, Purified anti- β -actin, Brilliant Violet 421™ anti- β -actin, Direct-Blot™ HRP anti- β -actin, Alexa Fluor® 647 anti- β -actin, Alexa Fluor® 488 anti- β -actin

Product Data



MCF7 mammary gland cells were fixed with cold methanol for ten minutes and blocked with 5% FBS for 30 minutes. Then, the cells were stained with 2.5 μ g/mL of anti β -actin (clone 2F1-1) Alexa Fluor® 594 (red) at room temperature for two hours. Nuclei were counterstained with DAPI (blue). The image was captured with a 60X objective.



Human paraffin-embedded intestine was prepared with standard deparaffination, rehydration, antigen retrieval and blocking protocols. Tissue was stained with anti- β -actin (clone 2F1-1) Alexa Fluor® 594 (red), and DAPI (blue). See additional supplemental data for detailed information.

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