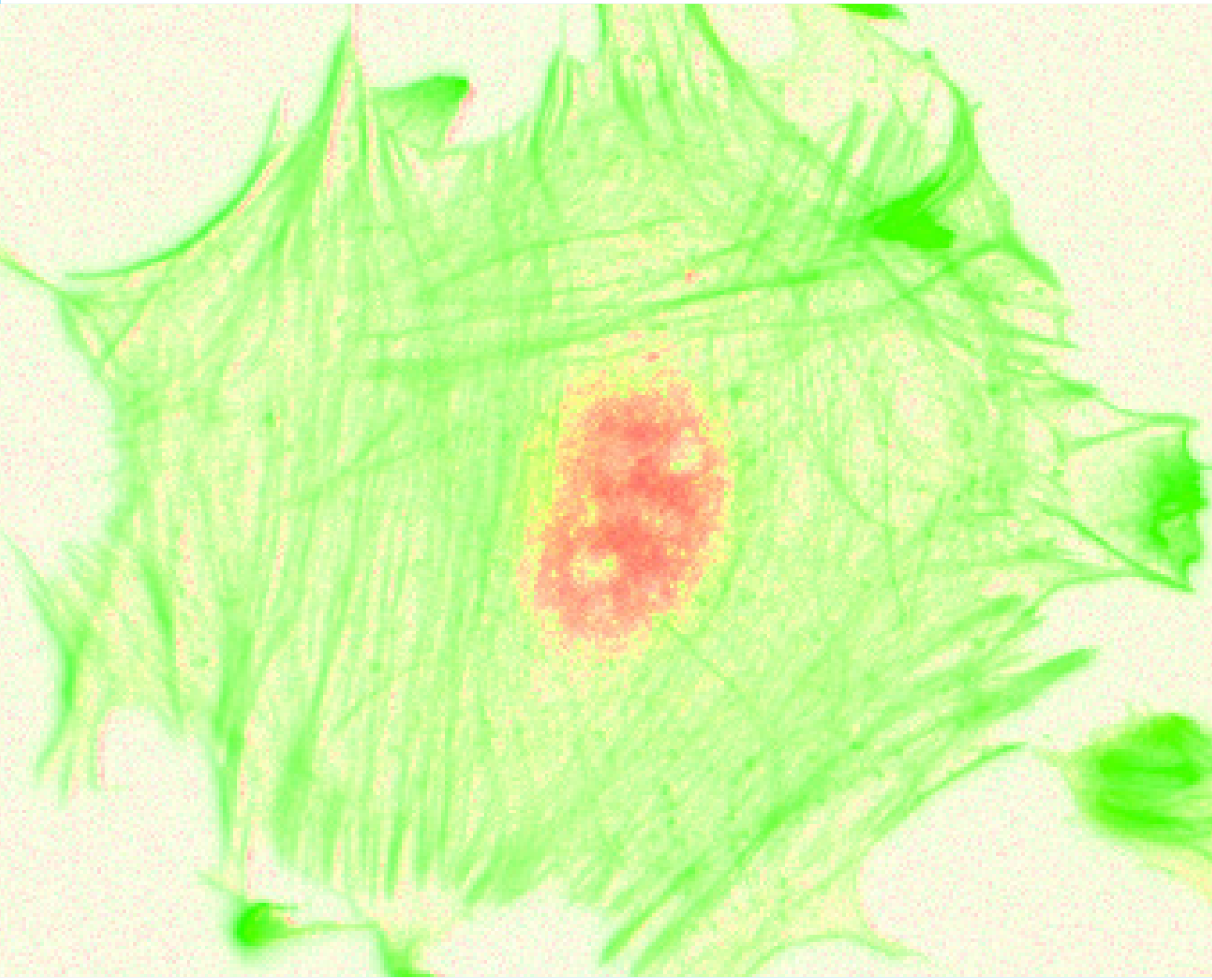
The Protein Experts

Cytoskeleton, Inc.

Cytoskeleton's Actin Tools

Protein, Antibodies, Kits, Probes, and More



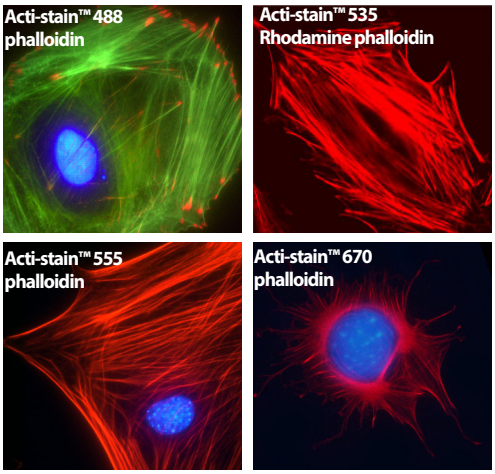
Trusted Actin Tools
by ***Cytoskeleton, Inc.***

Actin Tools

Acti-stain™ Fluorescent Phalloidins and Spirochrome™ Live Cell Probes

The Acti-stain™ line of fluorescent phalloidins has been developed with an emphasis on creating exceptionally bright and stable probes for F-actin offered at an economical price. Side-by-side comparisons with similar products insure considerable savings without sacrificing quality when switching to an Acti-stain™ probe. The combination of in-house manufacturing, stringent quality control, and convenient packaging provides a great value. Give them a try and see for yourself.

For more information, citations and comparison to other fluorescent phalloidins, visit:
cytoskeleton.com/actin/acti-stain



Product	Excitation	Emission	Signal stability without antifade* ($T_{1/2}$ in secs)	Cat. #	Amount**
Acti-stain™ 488 phalloidin	480 nm	535 nm	57	PHDG1-A	300 Slides
Acti-stain™ 535 phalloidin (Rhodamine phalloidin)	535 nm	585 nm	27	PHDR1	300 Slides
Acti-stain™ 555 phalloidin	535 nm	585 nm	46	PHDH1-A	300 Slides
Acti-stain™ 670 phalloidin	640 nm	670 nm	18	PHDN1-A	300 Slides
SiR700-Actin Kit Includes SiR-Actin and Verapamil	690 nm	720 nm	na***	CY-SC013	35 nmol
SiR-Actin Kit Includes SiR700-Actin and Verapamil	630 nm	680 nm	na***	CY-SC001	50 nmol
SPY-555 Actin Kit 1 vial of SPY555-Actin	555 nm	580 nm	na***	CY-SC202	100 stainings

* Stability measured with stained slides without antifade. For comparison, fluorescein phalloidin has a $T_{1/2}$ of 6 secs. ** One slide equals enough phalloidin to stain a 25 mm^2 coverslip. *** SiR was approximately ten fold more stable than Alexa647 and as stable as atto647N (Lukinavičius, et. al.; Nature Chemistry, 5, 132–139, 2013.). SiR-Actin is a trademarks of Spirochrome SA (Switzerland).

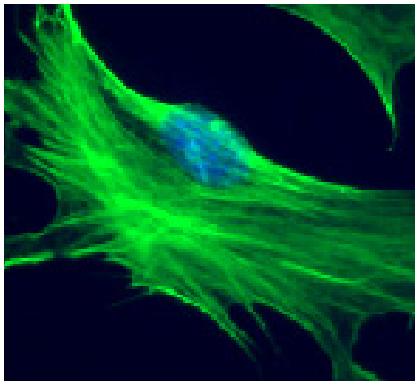
Myosin Proteins and Thin Cardiac Filaments

Cytoskeleton's purified and biologically active Thin Cardiac Filaments and Myosin Proteins have been used effectively in myosin drug screening models. Cytoskeleton offers an array of myosin, thin filament complex, and actin proteins from cardiac tissue to aide in these discoveries.

Myosin and Thin Filament Proteins	Source	Purity	Cat. #	Amount
Myosin II Cardiac Protein	Bovine cardiac muscle	95%	MY03-A MY03-B	5 x 1 mg 20 x 1 mg
S1 Myosin Protein	Rabbit skeletal muscle Chymotrypsin digest of Cat. # MY02 plus chromat	>90%	CS-MYS04	1 x 250 µg
S1 Myosin Protein	Bovine cardiac muscle Chymotrypsin digest of Cat. # MY03 plus chromat.	>90%	CS-MYS03	1 x 250 µg
Heavy Meromyosin Protein	Bovine cardiac muscle Chymotrypsin digest of Cat. # MY03 plus FPLC.	90%	CS-MH03	1 x 100 µg
Myosin II Protein	Rabbit skeletal muscle	95%	MY02-A MY02-B	5 x 1 mg 20 x 1 mg
Heavy Meromyosin Protein	Rabbit skeletal muscle Chymotrypsin digest of Cat. # MY02.	90%	MH01-A	4 x 50 µg
Myosin - smooth muscle S1 fragment	Chicken gizzards	90%	CY-MYS05	1 x 250 µg
Actin Thin Filament (Ca2+ sensitive complex)	Bovine cardiac muscle	90%	TFC01	1 x 1 mg

Pan-Actin Antibody

AAN02 is a mouse monoclonal antibody against actin protein. The antibody has been shown to recognize α-skeletal, α-cardiac, α-smooth muscle, β-cytoplasmic, γ-smooth muscle and γ- cytoplasmic actin isotypes.

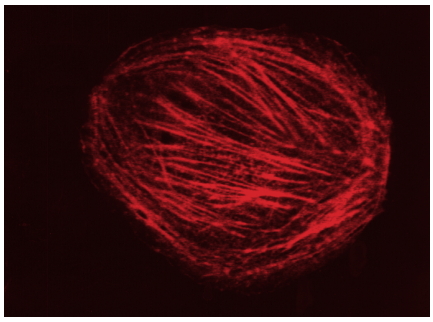


Immunofluorescence images of mouse Swiss 3T3 cells stained with anti-actin antibody. Swiss 3T3 cells were grown to 25% confluency on poly-lysine and laminin coverslips. 3T3 cells were fixed with PFA. Cells were permeabilized with methanol followed by 0.5% Triton X-100 as described in the method. IF staining using 1:500 dilution of anti-actin antibody in PBS is shown (green).

Product	Cat. #	Amount
Anti-Pan Actin Mouse Monoclonal Antibody (Clone 7A8.2.1)	AAN02-S	1 x 125 µl
Anti-Pan Actin Mouse Monoclonal Antibody (Clone 7A8.2.1)	AAN02	1 x 500 µl

Actin Tools

Labeled Actin Proteins

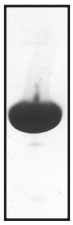


Highly pure, biologically active actins labeled with Rhodamine, Pyrene, or Biotin.

Labeled Actins	Source	Purity	Cat. #	Amount
Biotinylated Actin Protein	Rabbit skeletal muscle	>99%	AB07-A AB07-C	5 x 20 µg 20 x 20 µg
Pyrene Actin Protein	Rabbit skeletal muscle	>99%	AP05-A AP05-B	1 x 1 mg 5 x 1 mg
Pyrene Actin Protein	Bovine cardiac muscle	>99%	CS-AP07	1 x 250 µg
Rhodamine Actin Protein	Human platelet, non-muscle	>99%	APHR-A APHR-C	4 x 10 µg 20 x 10 µg
Rhodamine Actin Protein	Rabbit skeletal muscle	>99%	AR05-B AR05-C	10 x 20 µg 20 x 20 µg

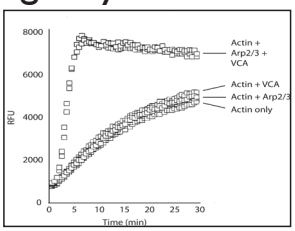
Go to www.cytoskeleton.com/actin for all of your actin needs. Be it proteins, kits, staining, fixed, live, and dynamic cell imaging. Scientists can always trust the experts in Actin.

High Purity & Biologically Active



>99% Pure
(Cat. AKL99)

The highest purity actin available. Purities greater than 99% from most sources. Cited hundreds of times in the literature.



Actin polymerization stimulated by Arp2/3 complex and the VCA domain of WASP measured by Pyrene Actin fluorescence (Cat.# AP05).

Unlabeled Actin Proteins

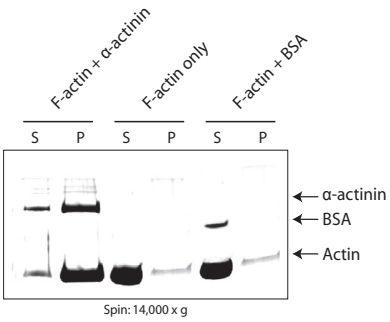
Unlabeled Actins	Source	Purity	Cat. #	Amount
Actin Protein	Rabbit skeletal muscle	>99%	AKL99-A AKL99-B AKL99-C AKL99-D AKL99-E	4 x 250 µg 2 x 1 mg 5 x 1 mg 10 x 1 mg 20 x 1 mg
Actin Protein	Rabbit skeletal muscle	>97%	AKL95-B AKL95-C	1 x 1 mg 5 x 1 mg
Actin Protein	Bovine cardiac muscle	>99%	AD99-A AD99-B	1 x 1 mg 5 x 1 mg
Actin Protein	Smooth muscle, chicken gizzard	>99%	AS99-A AS99-B	1 x 1 mg 5 x 1 mg
Actin Protein	Human platelet, non-muscle	>99%	APHL99-A APHL99-C APHL99-E	2 x 250 µg 1 x 1 mg 5 x 1 mg
Pre-formed Actin Filaments	Rabbit skeletal muscle	>99%	AKF99-A AKF99-B	1 x 1 mg 5 x 1 mg
Actin Thin Filament (Ca2+ sensitive complex)	Bovine cardiac muscle	90%	TFC01	1 x 1 mg
Ebashi Complex (complex of tromyosin/ tropomodulin)	Bovine cardiac muscle	70%	CS-TT05	1 x 1 mg

Cytoskeleton's Biochem Kits™ are comprehensive kits for assaying different aspects of Actin biochemistry!

Actin Binding Protein Spin-Down Assay Biochem Kit

- Identifies and characterizes Actin Binding Proteins (ABPs)
- Generation of saturation binding curves
- Muscle (BK001) or non-muscle (BK013) actin

This co-sedimentation assay will help you identify whether your ABP is a F-actin binding protein, a F-actin severing protein, has F-actin bundling activity, or is a G-actin binding protein.



Actin bundling assay using kit BK001

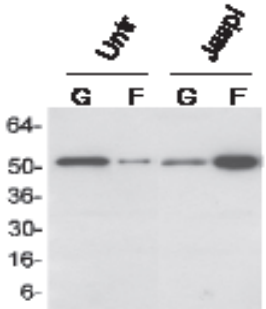
Bundled F-actin was pelleted by a 14,000 x g centrifugation and pellets (P) and supernatants (S) were run on a SDS-PAGE gel. Only in the presence of the F-actin bundling protein α-actinin is actin pelleted at this centrifugation speed.

Product	Cat. #	Amount
Actin Binding Protein Spin-Down Assay Biochem Kit™ (skeletal muscle actin)	BK001	30-100 assays
Actin Binding Protein Spin-Down Assay Biochem Kit™ (non-muscle actin)	BK013	30-100 assays

G-actin/F-actin *In Vivo* Assay Biochem Kit™

- Quantitates monomeric vs polymeric actin in cell/tissue lysates
- Reproducible and accurate method
- Contains all needed reagents

Lyse cells or tissue in the F-actin stabilizing buffer, preserving the G-actin:F-actin ratio. Centrifuge samples, separating supernatants (G-actin) and pellets (F-actin) which are then run on a gel for Western blot analysis.



Reorganization of actin after treatment with jasplakinolide

Swiss 3T3 cells were treated with jasplakinolide (Jaspl) or left untreated (Untr) and the G-actin (G) and F-actin (F) content was assayed using the G-actin/F-actin kit. Treatment with jasplakinolide resulted in a potent accumulation of F-actin.

Product	Cat. #	Amount
G-actin/F-actin *In Vivo* Assay Biochem Kit™	BK037	30-100 assays
Protease Inhibitor Cocktail (100x solution)	PIC02	1 ml

Cytoskeleton, Inc.

The Protein Experts

Ordering information for USA and Canada:
Online - cytoskeleton.com
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Denver, CO 80223, USA.

International Customers
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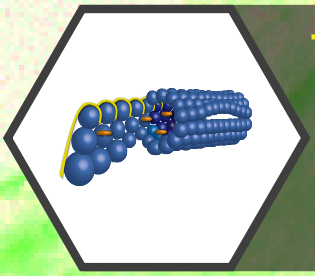
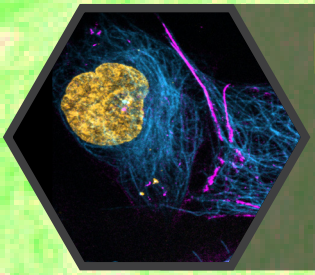
cytoskeleton.com/distributors



Tubulin Tools

- Tubulin Polymerization Assays
- Tubulin Binding Assays
- Labeled and Unlabeled Tubulin Proteins



Live Cell Imaging Tools

- Spirochrome: Actin, DNA, and Tubulin Tools
- New MemGlow™ Flourogenic Probes
- New Flipper Probes and SPY-BG Dyes

Activation Assay Tools

- Measure Active Small G-Proteins
- RhoA, cdc42, Rac1, Arf, and Ras
- GLISA and Pulldown Applications