

## Actin Recombinant Rabbit Monoclonal Antibody Product Datasheet

Catalog# BX00063

Clone# RR667

**Predicted Molecular Wt:** 42kDa  
**Species Cross-reactivity:** Human, Mouse, Rat, Dog, Bovine, Pig, Chicken,  
 Green monkey, African clawed frog, Zebrafish

**Purity:** ProA affinity purified IgG  
**Form:** Liquid  
**Swissprot ID:** P68133

*Species cross-reactivity determined by WB*

**Applications:** WB IHC-P IF/ICC IP

### Background:

Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells. This antibody is predicted to react with all actin isoforms, including: 1) sarcomeric actins,  $\alpha$ -skeletal ( $\alpha$ -SKA) and  $\alpha$ -cardiac ( $\alpha$ -CAA), 2) smooth muscle actins (SMAs),  $\alpha$ -SMA and  $\gamma$ -SMA, and 3) cytoplasmic actins (CYAs),  $\beta$ -CYA and  $\gamma$ -CYA.

### Immunogen:

A synthetic peptide corresponding to the N-term of actin was used as an immunogen.

### Storage Buffer:

PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.

### Storage conditions:

-20°C

### Storage instructions:

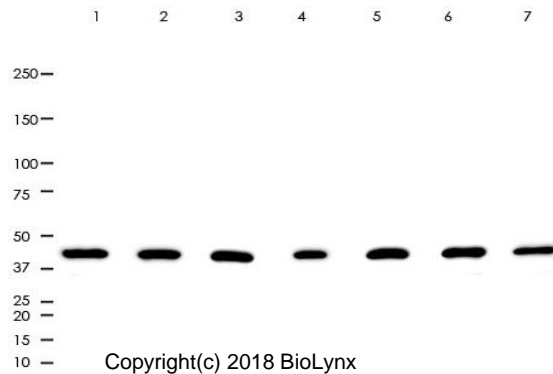
Shipped on blue ice. Upon delivery, aliquot, and store at -20°C. Avoid freeze / thaw cycles.

### Recommended Dilutions:

WB: 1:1,000 - 1:2,000  
 IHC-P: 1:800 - 1:1,600  
 IF/ICC: 1:10 - 1:50  
 IP: 1:40

### Background References:

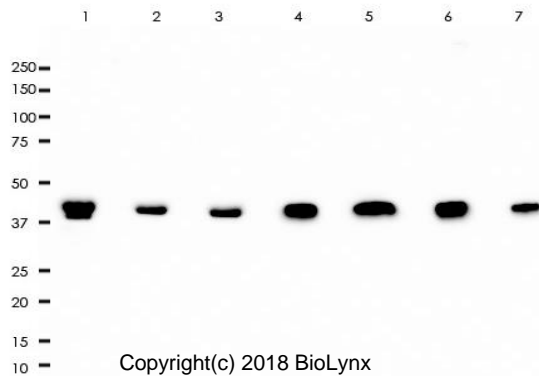
- Chen X et al. Sci Rep 7:40958 (2017).
- Vermillion MS et al. Nat Commun 8:14575 (2017).



All lanes: Anti-actin antibody at 1:1,000 dilution  
 Predicted MW: 42 kDa  
 Observed MW: 42 kDa

Lane 1: Jurkat  
 Lane 2: HeLa  
 Lane 3: 293T  
 Lane 4: Raw264.7  
 Lane 5: A431  
 Lane 6: A375  
 Lane 7: 3T3

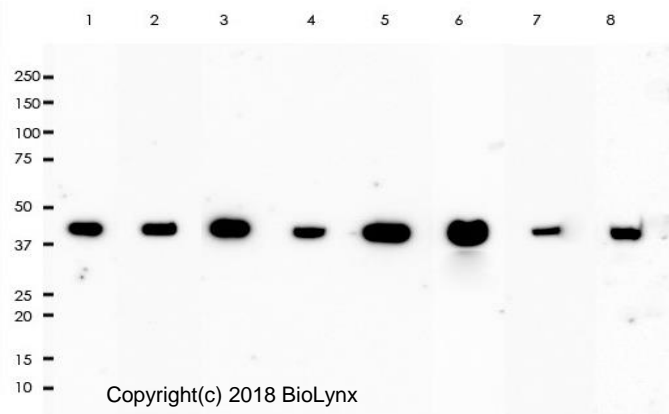
Lysates at 10  $\mu$ g per lane  
 2nd Ab:  
 GAR HRP(H+L) 1:5,000  
 Exposure: 20s



All lanes: Anti-actin antibody at 1:1,000 dilution  
 Predicted MW: 42 kDa  
 Observed MW: 42 kDa

Lane 1: MDBK  
 Lane 2: MDCK  
 Lane 3: COS-7  
 Lane 4: Pig heart  
 Lane 5: Chicken heart  
 Lane 6: African clawed frog  
 Lane 7: Zebrafish

Lysates at 10  $\mu$ g per lane  
 2nd Ab:  
 GAR HRP(H+L) 1:5,000  
 Exposure: 20s

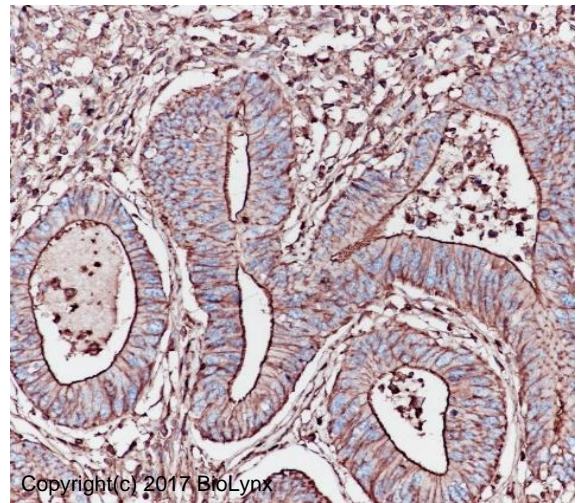


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All lanes: Anti-actin antibody at 1:1,000 dilution  
 Predicted MW: 42 kDa  
 Observed MW: 42 kDa

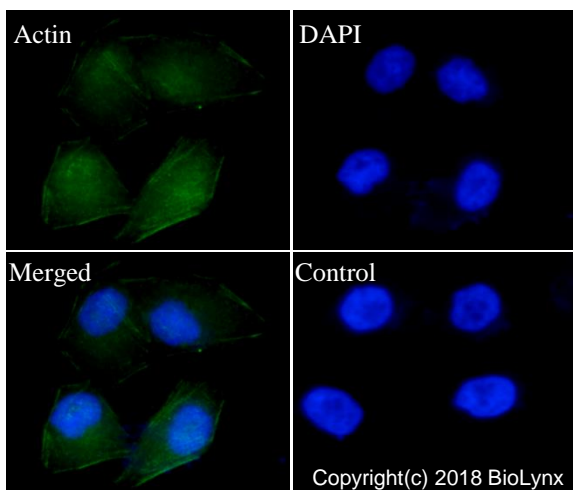
Lane 1: Mouse brain  
 Lane 2: Mouse heart  
 Lane 3: Mouse kidney  
 Lane 4: Mouse liver  
 Lane 5: Rat brain  
 Lane 6: Rat liver  
 Lane 7: Rat kidney  
 Lane 8: Rat liver

Lysates at 10 µg per lane  
 2nd Ab:  
 GAR HRP(H+L) 1:5,000  
 Exposure: 20s



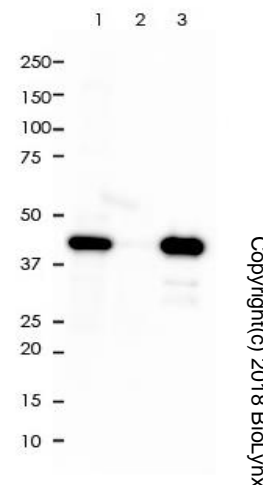
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colonic adenocarcinoma tissue labelling actin with RR667 at 1:1,600. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0.



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RR667 staining Actin in HeLa cells by IF/ICC (immunofluorescence/immunocytochemistry). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 10% goat serum for half an hour at room temperature. Samples were incubated with primary antibody (1:50) at 4°C. An Alexa Fluor® 488-conjugated Goat Anti-Rabbit IgG polyclonal was used as the secondary antibody (1:500). DAPI (blue) was used as the nuclear counter stain.  
 Control: PBS and secondary antibody, An Alexa Fluor® 488-conjugated Goat Anti-Rabbit IgG (1:500).



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Actin was immunoprecipitated from 0.4mg of PC-12 whole cell lysate with RR667 at 1:40 dilution.

2nd Ab:  
 GAR HRP for IP 1:500

Lane 1: RR667 IP in PC-12 whole cell lysate  
 Lane 2: PBS instead of RR667 in PC-12 whole cell lysate  
 Lane 3: PC-12 whole cell lysate, 10 µg (input)

Exposure: 30s

Product QC'd by:



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