

# Product Datasheet

## Actin Gamma 1 Antibody (NH3) - BSA Free NB100-64792

Unit Size: 0.25 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

**Reviews: 2 Publications: 8**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NB100-64792](http://www.novusbio.com/NB100-64792)

Updated 9/9/2025 v.20.1

**Earn rewards for product  
reviews and publications.**

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NB100-64792](http://www.novusbio.com/reviews/destination/NB100-64792)



**NB100-64792**

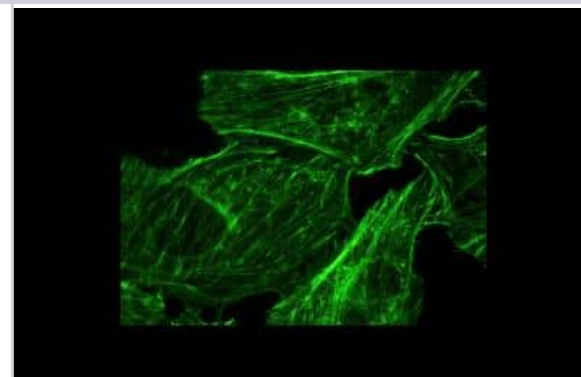
Actin Gamma 1 Antibody (NH3) - BSA Free

Product Information	
Unit Size	0.25 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	NH3
Preservative	0.09% Sodium Azide
Isotype	IgM
Purity	IgM purified
Buffer	PBS
Product Description	
Description	Novus Biologicals Mouse Actin Gamma 1 Antibody (NH3) - BSA Free (NB100-64792) is a monoclonal antibody validated for use in IHC, WB, ELISA, Flow and ICC/IF. Anti-Actin Gamma 1 Antibody: Cited in 7 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	71
Gene Symbol	ACTG1
Species	Human
Reactivity Notes	Predicted cross-reactivities: Rat, Rabbit, Mouse  Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Specificity/Sensitivity	Recognizes human Filamentous actin (F-actin). The binds to the N-terminal region of actin, but not to the extreme N-terminal 40 amino acids. In tissue sections the stains the cytoplasm of macrophages strongly, and gives granular, localized nuclear staining of all cell types.
Immunogen	Human monocytes and U937 cell line
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 1:100 - 1:500, Flow Cytometry 1:10, ELISA 1:10, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence 1:10 - 1:500, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen 1:10 - 1:500
Application Notes	Actin Gamma 1 antibody validated for ICC/IF and IHC-P from verified customer reviews.

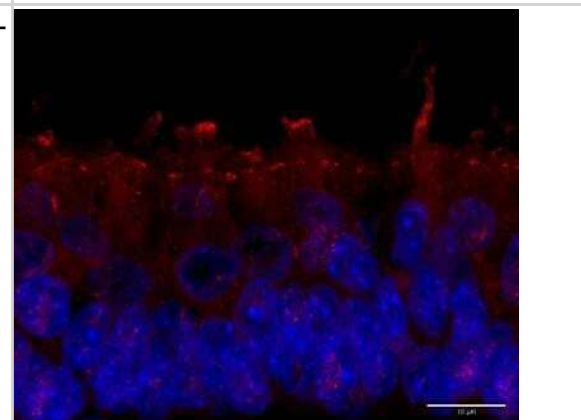


## Images

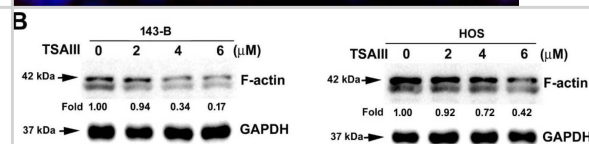
Immunocytochemistry/Immunofluorescence: Actin Gamma 1 Antibody (NH3) [NB100-64792] - The distribution of stress fiber was observed by F-actin staining. Image from verified customer review.



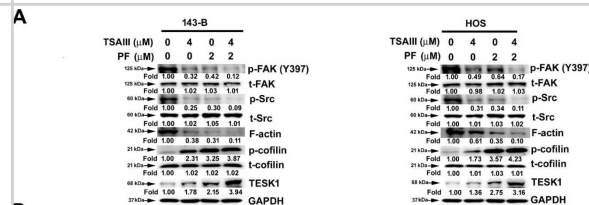
Immunohistochemistry-Paraffin: Actin Gamma 1 Antibody (NH3) [NB100-64792] - Human inner ear tissue section stained with Actin Gamma 1 antibody at 1:100 overnight at 4C and detected with Alexa Fluor 488 Donkey anti-mouse at 1:200. Nuclei stained with DAPI. IHC-P image submitted by a verified customer review.



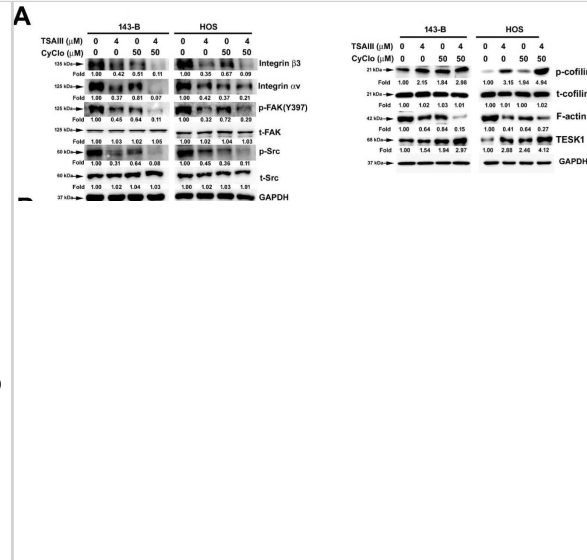
Effect of TSAIII on cell migration, invasion, and F-actin expression of human osteosarcoma cells. (A) Human 143-B and HOS osteosarcoma cells were treated with various concentrations of timosaponin AIII (TSAIII; 0, 2, 4, and 6  $\mu$ M) for 24 h, and cell migration and invasion abilities were measured. (B) Cytoskeletal F-actin expression in human 143-B and HOS osteosarcoma cells exposed to TSAIII (0, 2, 4, 6  $\mu$ M) was measured through immunoblotting. Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) was used as the internal control. (C) Distribution of cytoskeletal F-actin in 143-B and HOS cells was further confirmed using immunofluorescence analysis. \*  $p < 0.05$ ; \*\*  $p < 0.01$  versus control. Scale bar: 50  $\mu$ m. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/33799345>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



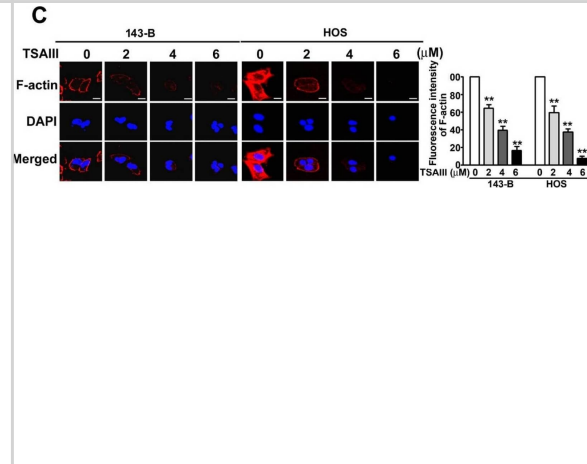
Synergistically inhibitory effect of TSAIII and PF on migration and invasion of human osteosarcoma cells. (A) Human 143-B and HOS osteosarcoma cells were treated with various concentrations of TSAIII (0 and 4  $\mu$ M) and/or PF (0 and 2  $\mu$ M) and then harvested to detect the expression and activation of cytoskeletal-related proteins through immunoblotting. Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) was used as the internal control. (B) Using immunofluorescence analysis, the expression of cytoskeletal F-actin was observed in human 143-B and HOS osteosarcoma cells. (C) The migration and invasion abilities of human 143-B and HOS osteosarcoma cells were measured after treatment with TSAIII in the presence or absence of PF for 24 h. \*\*  $p < 0.01$  versus control; #  $p < 0.05$  versus treatment with PF alone (mean  $\pm$  standard error,  $n = 3$ ). PF denotes PF-573228 (focal adhesion kinase inhibitor). Scale bar: 50  $\mu$ m. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/33799345>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



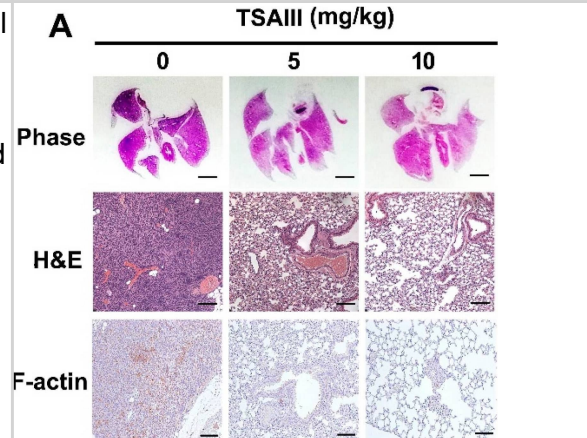
Synergistically inhibitory effect of TSAIII and Cyclo on migration and invasion of human osteosarcoma cells. (A) Human 143-B and HOS osteosarcoma cells were treated with various concentrations of TSAIII (0 and 4  $\mu$ M) and/or Cyclo (0 and 50  $\mu$ M) and then harvested to detect the expression and activation of cytoskeletal-related proteins through immunoblotting. Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) was used as the internal control. (B) A change in the expression of cytoskeletal F-actin was observed in human 143-B and HOS osteosarcoma cells using immunofluorescence analysis. (C) The migration and invasion capacities of human 143-B and HOS osteosarcoma cells were measured after treatment with TSAIII in the presence or absence of Cyclo for 18 h (migration) or 24 h (invasion). \*\*  $p < 0.01$  versus control; #  $p < 0.05$  versus treatment with Cyclo alone. Cyclo denotes Cyclo(RGDyK) (Integrin inhibitor). Scale bar: 50  $\mu$ m. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/33799345>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Effect of TSAIII on cell migration, invasion, and F-actin expression of human osteosarcoma cells. (A) Human 143-B and HOS osteosarcoma cells were treated with various concentrations of timosaponin AIII (TSAIII; 0, 2, 4, and 6  $\mu$ M) for 24 h, and cell migration and invasion abilities were measured. (B) Cytoskeletal F-actin expression in human 143-B and HOS osteosarcoma cells exposed to TSAIII (0, 2, 4, 6  $\mu$ M) was measured through immunoblotting. Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) was used as the internal control. (C) Distribution of cytoskeletal F-actin in 143-B and HOS cells was further confirmed using immunofluorescence analysis. \*  $p < 0.05$ ; \*\*  $p < 0.01$  versus control. Scale bar: 50  $\mu$ m. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/33799345>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



In vivo metastasis of TSAIII in human osteosarcoma cells. For the animal assay of lung metastasis, human osteosarcoma cells were harvested and injected into the tail veins of five-week-old immunodeficient mice (C.B17/IcrPrkdcscid/CrI/NarI). The mice were then fed TSAIII (5 and 10 mg/kg) through oral gavage. After two months, the mice were euthanised and (A) the histopathology of the lungs in metastatic tumour-bearing animals was analysed. The lungs were fixed in neutral-buffered formalin and stained with haematoxylin and eosin. The F-actin expression were detected with immunohistochemistry assay. (B) The nodule numbers were then counted in the mice. \*\*  $p < 0.01$  versus control (n = 5). Scale bar: 100  $\mu$ m. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/33799345>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

- Chen M, Menon MC, Wang W et al. HCK induces macrophage activation to promote renal inflammation and fibrosis via suppression of autophagy *Nature communications* 2023-07-18 [PMID: 37463911] (ICC/IF, Mouse)
- Zheng Y, Li G, Luo Y et al. The RBPMS<sup>CreERT2</sup>-TdTomato Mouse for Study Retinal and Vascular Relevant Disease Available at SSRN 4417787 2023-04-13 (IHC)
- Wendt TS, Li YJ, Gonzales RJ Ozanimod, an S1PR1 ligand, attenuates hypoxia plus glucose deprivation induced autophagic flux and phenotypic switching in human brain VSM cells *American journal of physiology. Cell physiology* 2021-03-31 [PMID: 33788630]
- Hsieh Y, Hsu W, Yang S et al. Potential Antimetastatic Effect of Timosaponin AIII against Human Osteosarcoma Cells through Regulating the Integrin/FAK/Cofilin Axis *Pharmaceuticals* 2021-03-14 [PMID: 33799345] (IF/IHC, Mouse)
- Hall G, Lane BM, Khan K et al. The Human FSGS-Causing ANLN R431C Mutation Induces Dysregulated PI3K/AKT/mTOR/Rac1 Signaling in Podocytes. *J. Am. Soc. Nephrol.* 2018-08-01 [PMID: 30002222]
- Liu R, Lauridsen HM, Amezcua RA et al. IL-17 Promotes Neutrophil-Mediated Immunity by Activating Microvascular Pericytes and Not Endothelium. *J. Immunol.* 2016-08-17 [PMID: 27534549] (ICC/IF, Human)
- Goncalves NP, Martins D, Saraiva MJ. Overexpression of Protocadherin-10 in Transthyretin-Related Familial Amyloidotic Polyneuropathy. *Am. J. Pathol.* 2016-07-01 [PMID: 27338109]
- Cheng WY, Chiao MT, Liang YJ et al. Luteolin inhibits migration of human glioblastoma U-87 MG and T98G cells through downregulation of Cdc42 expression and PI3K/AKT activity. *Mol Biol Rep* 2013-05-16 [PMID: 23677714] (WB, Human)





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB100-64792**

---

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97007	Mouse IgM Isotype Control

---

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NB100-64792](http://www.novusbio.com/reviews/submit/NB100-64792)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

