

# Product Datasheet

## Profilin 1 Antibody (OTI1D5) NBP2-02577

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

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**NBP2-02577**

Profilin 1 Antibody (OTI1D5)

Product Information	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	1 mg/ml
<b>Storage</b>	Store at -20C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	OTI1D5
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG2a
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	PBS (pH 7.3), 1.0% BSA and 50% Glycerol
<b>Target Molecular Weight</b>	14.9 kDa

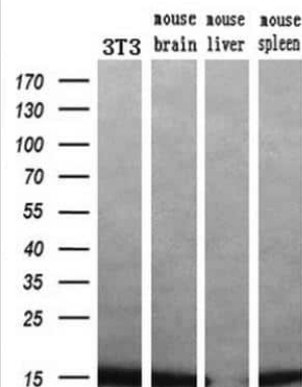
Product Description	
<b>Description</b>	Novus Biologicals Mouse Profilin 1 Antibody (OTI1D5) (NBP2-02577) is a monoclonal antibody validated for use in IHC, WB, Flow and ICC/IF. Anti-Profilin 1 Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Mouse
<b>Gene ID</b>	5216
<b>Gene Symbol</b>	PFN1
<b>Species</b>	Human, Mouse, Rat, Canine, Monkey
<b>Reactivity Notes</b>	Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Mouse-On-Mouse blocking reagent may be needed for IHC and ICC experiments to reduce high background signal. You can find these reagents under catalog numbers PK-2200-NB and MP-2400-NB. Please contact Technical Support if you have any questions.
<b>Immunogen</b>	Full length human recombinant protein of human PFN1 (NP_005013) produced in HEK293T cell.

Product Application Details	
<b>Applications</b>	Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
<b>Recommended Dilutions</b>	Western Blot 1:1000-2000, Flow Cytometry 1:100, Immunohistochemistry 1:50, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 1:50

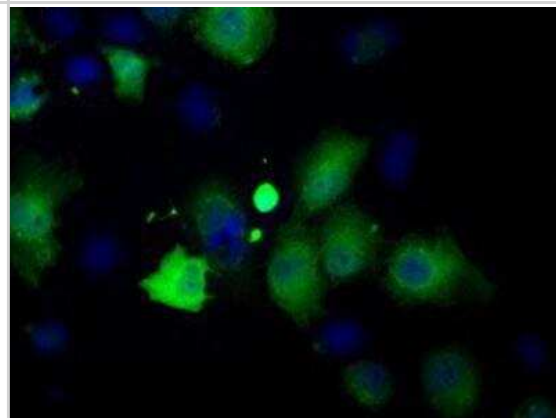


## Images

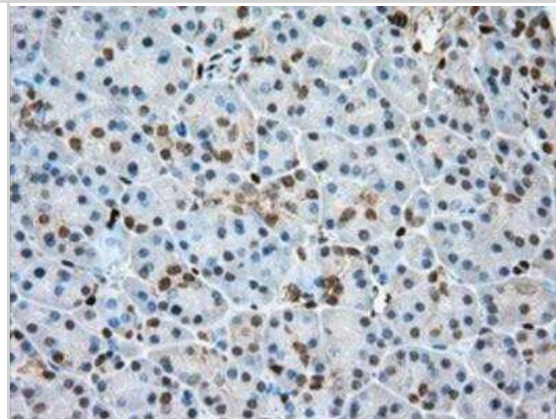
Western Blot: Profilin 1 Antibody (OT11D5) [NBP2-02577] - Analysis of extracts (10ug) from a mouse cell line and 3 different mouse tissues by using anti-PFN1 monoclonal antibody.(1:200)



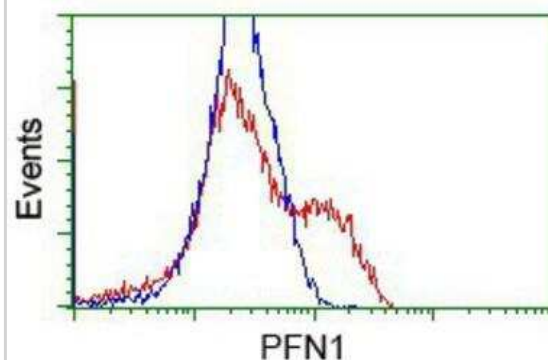
Immunocytochemistry/Immunofluorescence: Profilin 1 Antibody (1D5) [NBP2-02577] - Staining of COS7 cells transiently transfected by pCMV6-ENTRY Profilin 1.



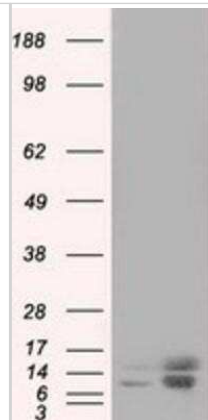
Immunohistochemistry-Paraffin: Profilin 1 Antibody (1D5) [NBP2-02577] - Staining of paraffin-embedded Human pancreas tissue using anti-Profilin 1 mouse monoclonal antibody.



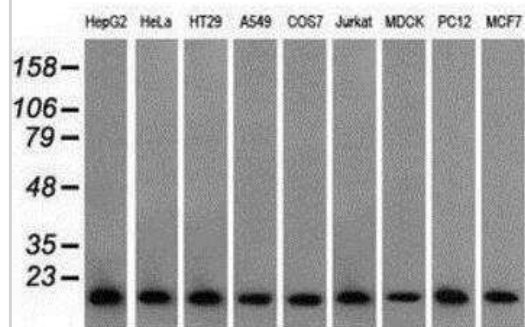
Flow Cytometry: Profilin 1 Antibody (1D5) [NBP2-02577] - HEK293T cells transfected with either overexpression plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-Profilin 1 antibody, and then analyzed by flow cytometry.



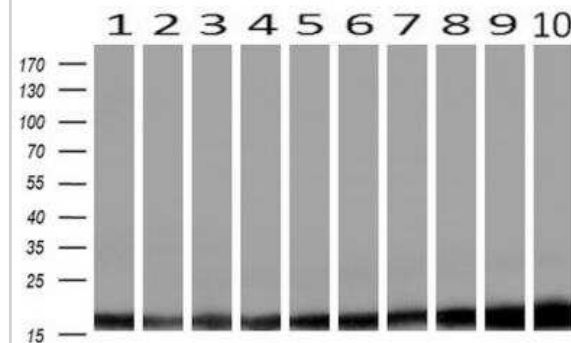
Western Blot: Profilin 1 Antibody (1D5) [NBP2-02577] - HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY Profilin 1 (Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-Profilin 1.



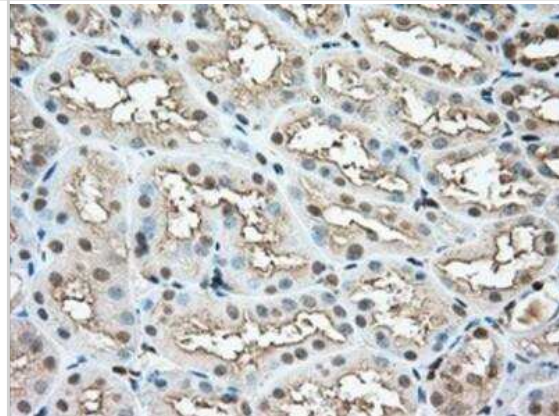
Western Blot: Profilin 1 Antibody (1D5) [NBP2-02577] - Analysis of extracts (35ug) from 9 different cell lines by using anti-Profilin 1 monoclonal antibody.



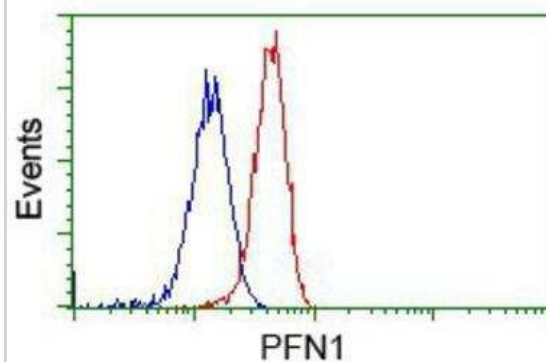
Western Blot: Profilin 1 Antibody (OT11D5) [NBP2-02577] - Analysis of extracts (10ug) from 10 Human tissue by using anti-PFN1 monoclonal antibody at 1:200 (1: Testis; 2: Omentum; 3: Uterus; 4: Breast; 5: Brain; 6: Liver; 7: Ovary; 8: Thyroid gland; 9: colon; 10: spleen).



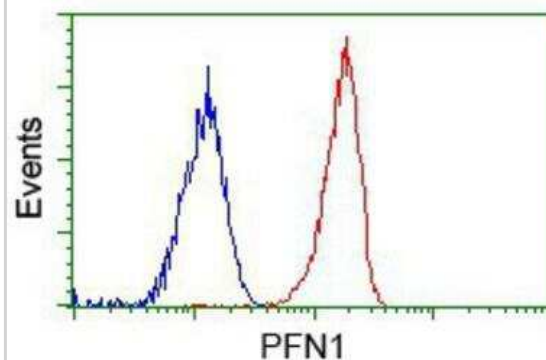
Immunohistochemistry-Paraffin: Profilin 1 Antibody (1D5) [NBP2-02577] - Staining of paraffin-embedded Human Kidney tissue using anti-Profilin 1 mouse monoclonal antibody.



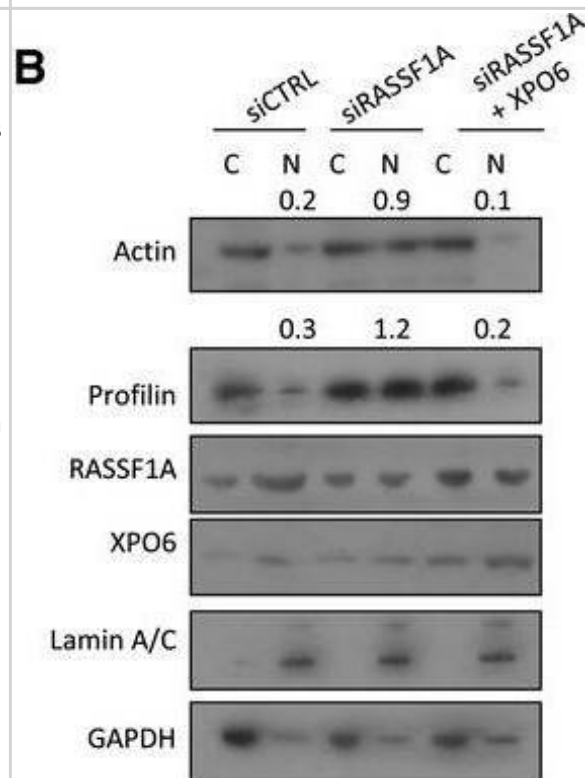
Flow Cytometry: Profilin 1 Antibody (1D5) [NBP2-02577] - Analysis of HeLa cells, using anti-Profilin 1 antibody, (Red), compared to a nonspecific negative control antibody (Blue).



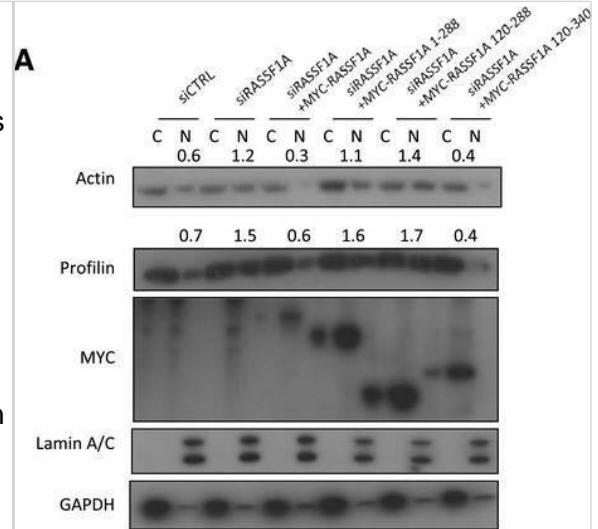
Flow Cytometry: Profilin 1 Antibody (1D5) [NBP2-02577] - Analysis of Jurkat cells, using anti-Profilin 1 antibody, (Red), compared to a nonspecific negative control antibody (Blue).



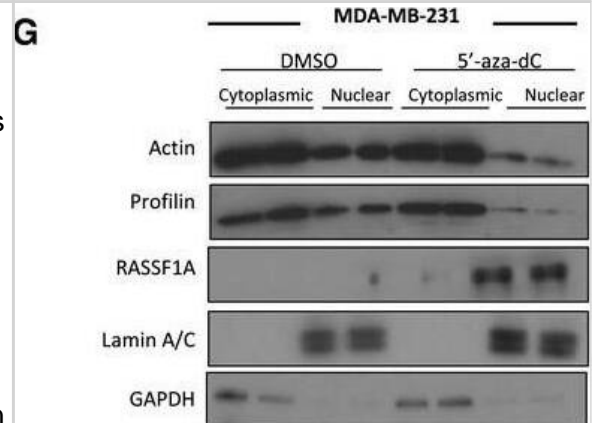
Immunoprecipitation: Profilin 1 Antibody (OT11D5) [NBP2-02577] - RASSF1A depletion does not affect nuclear F-actin levels. Western blot analysis of actin & profilin levels in nuclear & cytoplasmic fractions of cells transfected with truncated RASSF1A mutants. Western blot analysis of actin & profilin levels in nuclear & cytoplasmic fractions of cells transfected with siRASSF1A & siRASSF1A together with XPO6 plasmid. Western blot analysis of actin & profilin levels in nuclear & cytoplasmic fractions of cells transfected with siRNA-resistant FLAG-RASSF1A plasmid. Western blot analysis of actin & profilin levels in nuclear & cytoplasmic fractions of cells transfected with siMST2. Quantification of nuclear actin & profilin relative to Lamin A/C is shown. Error bars derive from three independent experiments & represent the SEM. Western blot analysis of exportin-6 (XPO6) & importin-9 (IPO9) in the absence of RASSF1A. GAPDH was used as a loading control. Confocal images of endogenous filamentous actin (F-actin) in siCTRL & siRASSF1A cells using phalloidin staining (Alexa Fluor 568-conjugated, red). DNA was stained with DAPI. Scale bars = 10  $\mu$ m. Western blot analysis of actin, profilin, GAPDH & Lamin A/C levels in nuclear & cytoplasmic fractions of MDA-MB-231 cells treated with DMSO or 5-azacytidine. The graph shows the nuclear levels of actin & profilin relative to Lamin A/C in MDA-MB-231 cells expressing RASSF1A. Error bars derive from two independent experiments & represent the SEM. Data information: Two-tailed Student's t-test was used for statistical analysis. \*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.001. Source data are available online for this figure. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31414556>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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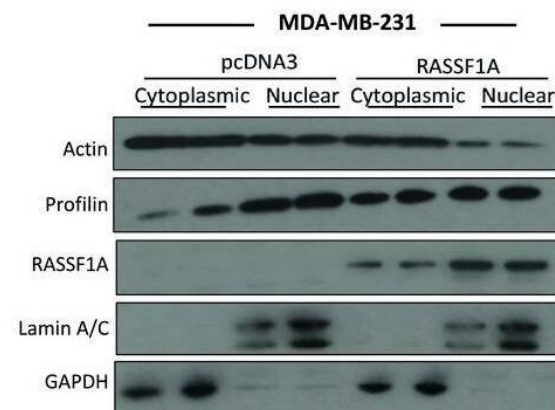


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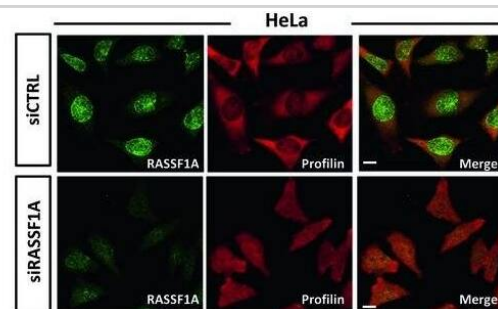
Immunoprecipitation: Profilin 1 Antibody (OT11D5) [NBP2-02577] - RASSF1A is involved in actin & profilin nuclear export process HeLa cells treated with control or RASSF1A siRNA were fractionated into cytoplasmic & nuclear extracts. Lysates from each fraction were probed for actin & profilin alongside GAPDH (as a marker of the cytoplasmic fraction) & Lamin A/C (as a marker of the nuclear fraction). Right: quantification of nuclear actin & profilin relative to Lamin A/C is shown. Error bars derive from two independent experiments & represent the SEM. Immunofluorescence images of profilin in control & RASSF1A siRNA-transfected HeLa cells. Right: the profilin localisation was scored as nuclear/cytoplasmic or predominantly cytoplasmic in approximately 100 cells. Error bars derive from three independent experiments & represent the SEM. Confocal images of endogenous monomeric globular actin (G-actin) in siCTRL & siRASSF1A cells using DNase I staining (Alexa Fluor 488-conjugated, green). Scale bars = 10  $\mu$ m. Western blot analysis of actin, profilin, GAPDH & Lamin A/C levels in nuclear & cytoplasmic fractions of MDA-MB-231 cells treated with control pcDNA3 or RASSF1A vector. The graph shows the nuclear levels of actin & profilin relative to Lamin A/C in MDA-MB-231 cells expressing RASSF1A. Error bars derive from two independent experiments & represent the SEM. Data information: Two-tailed Student's t-test was used for statistical analysis. \*P < 0.05, \*\*P < 0.01. Source data are available online for this figure. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31414556>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

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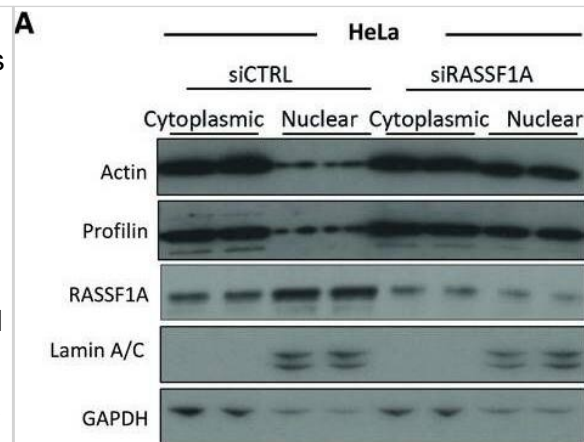


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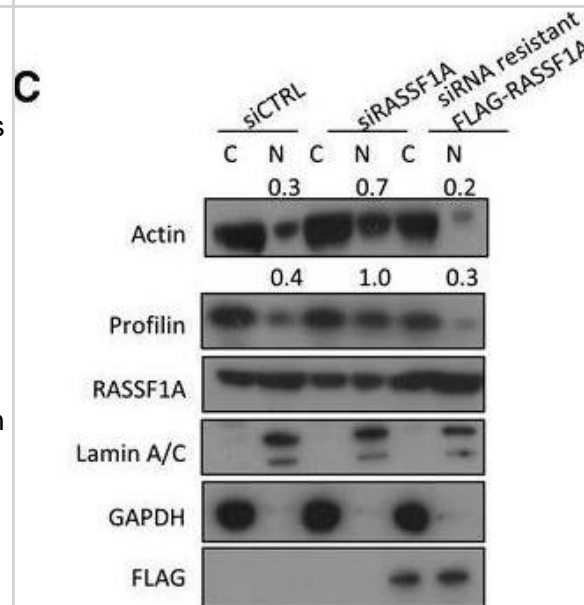
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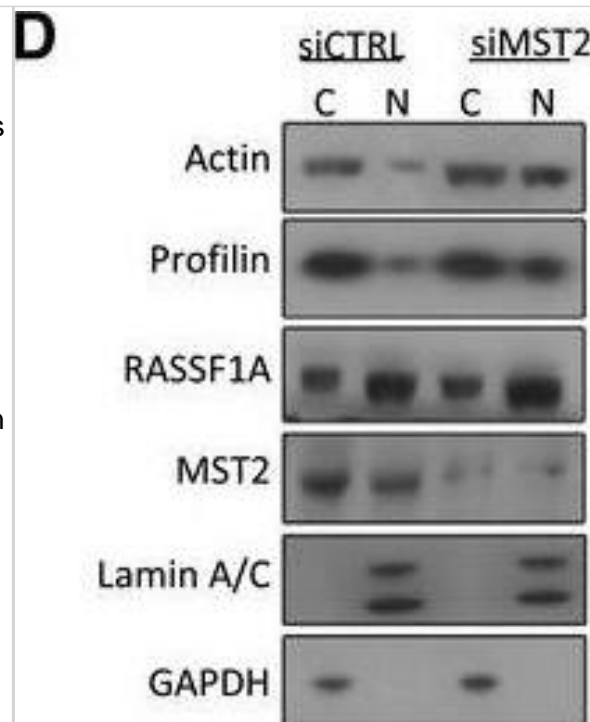
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## Publications

Chatzifrangkeskou, M, Pefani, D E Et al. RASSF1A is required for the maintenance of nuclear actin levels. *EMBO J* 2019-08-15 [PMID: 31414556] (IF/IHC, Human)

Chatzifrangkeskou M, Pefani D E et al. RASSF1A is required for the maintenance of nuclear actin levels. *EMBO J* 2019-07-06 [PMID: 31175105] (WB, ICC/IF, Human)

Heo SH, Kang E, Kim YM et al. Fabry disease: characterisation of the plasma proteome pre- and post-enzyme replacement therapy. *J. Med. Genet.* 2017-08-23 [PMID: 28835480] (WB, Human)



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Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NBP2-02577**

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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]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)

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### **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.

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