

Product Datasheet

PKN3 Antibody - BSA Free NBP1-30102

Unit Size: 100 ul

Store at 4C. Do not freeze.

www.novusbio.com



technical@novusbio.com

Reviews: 2 Publications: 6

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-30102

Updated 9/9/2025 v.20.1

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

Submit a publication at www.novusbio.com/publications

Submit a review at www.novusbio.com/reviews/destination/NBP1-30102



NBP1-30102

PKN3 Antibody - BSA Free

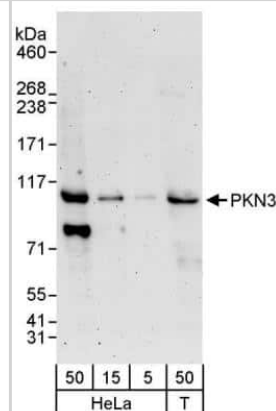
Product Information	
Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)
Target Molecular Weight	99 kDa

Product Description	
Description	Novus Biologicals Knockout (KO) Validated Rabbit PKN3 Antibody - BSA Free (NBP1-30102) is a polyclonal antibody validated for use in WB. Anti-PKN3 Antibody: Cited in 6 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	29941
Gene Symbol	PKN3
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 30422386).
Immunogen	maps to a region between residue 225 and 275 of human protein kinase N3 using the numbering given in entry NP_037487.2

Product Application Details	
Applications	Western Blot, Immunoprecipitation (Negative), Knockout Validated
Recommended Dilutions	Western Blot 1:2000-1:10000, Immunoprecipitation (Negative), Knockout Validated Reactivity validation reported in (PMID: 30518210)

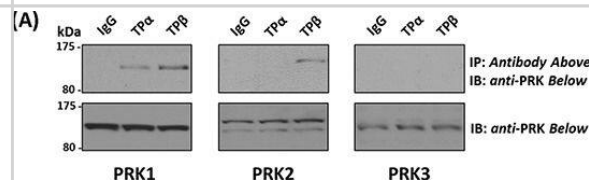
Images

Western Blot: PKN3 Antibody [NBP1-30102] - Whole cell lysate from HeLa (5, 15 and 50 ug) and 293T (T; 50 ug) cells. Antibody used at 0.1 ug/ml.

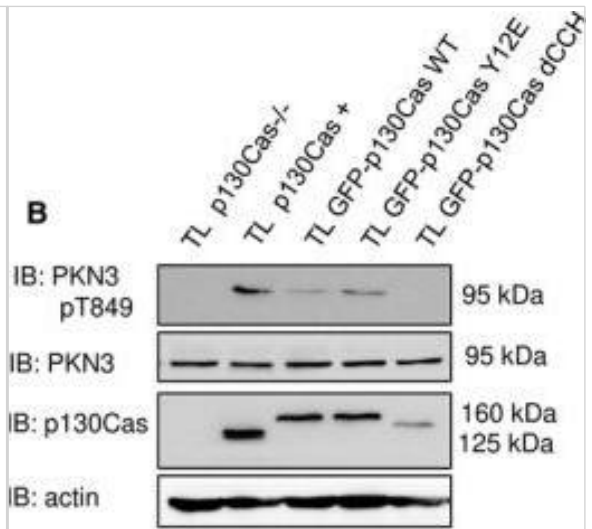


Western Blot: PKN3 Antibody [NBP1-30102] - Effect of siRNA-mediated disruption of PRK1, PRK2 & PRK3 expression on TP agonist-induced proliferation & migration of PC-3 cells Panels A-D. PC-3 cells were transfected for 48 hr with 30 nM siRNAPRK1, siRNAPRK2, siRNAPRK3 or, as controls, with a scrambled siRNA (siRNAControl) prior to stimulation with U46619 (10 nM) or vehicle (0.0001% EtOH) for the indicated time specific to the assay, where non-transfected cells served as a reference. Panel A: For analysis of proliferation, 72 hr post-siRNA transfection PC-3 cells were stimulated for 48 hr with U46619 (10 nM) or vehicle (0.0001% EtOH). Panel B: For analysis of colony formation, 48 hr post-siRNA transfection PC-3 cells were stimulated with U46619 (10 nM) or vehicle (0.0001% EtOH) in soft agar & assessed 10 day post-treatment for colony formation. Panel C: For analysis of migration, 72 hr post-siRNA transfection PC-3 cells were stimulated for 8 hr with U46619 (10 nM) or vehicle (0.0001% EtOH). In Panels A-C, the bar charts show mean relative levels of PC-3 cell proliferation, colony formation & migration (\pm SEM, $n \geq 3$), where levels in the vehicle-treated cells are assigned a value of 100%. The asterisks indicate where U46619-stimulation resulted in significant increases in proliferation, colony formation or migration by PC-3 cells compared to vehicle-treated cells, where ** & *** indicates $p < 0.01$ & $p < 0.001$, respectively. Panel D: Validation of the specificity & sustained siRNA-mediated disruption of PRK1, PRK2 & PRK3 expression was confirmed by immunoblot analysis of whole cell lysates (20 μ g/lane) with the respective anti-PRK1/2/3 or, to validate protein loading, with anti-HDJ2 antisera where analysis was carried out 3 & 6 day post-transfection. Data $n \geq 3$. Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.4664>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

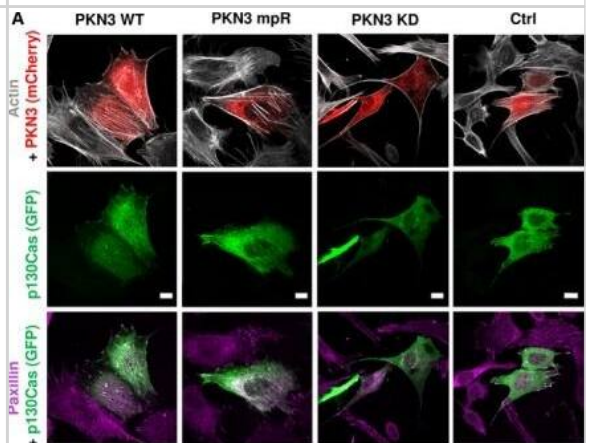
Western Blot: PKN3 Antibody [NBP1-30102] - Association of PRK1 & PRK2 with TP α & TP β in prostate PC-3 cells Panel A. PC-3 cells were immunoprecipitated with anti-TP α , anti-TP β or, as controls, with the pre-immune (IgG) sera. Thereafter, immunoprecipitates (upper panels) or equivalent aliquots of whole cell lysates (20 μ g/lane, lower panels) were immunoblotted (IB) with anti-PRK1, anti-PRK2 or anti-PRK3 antisera. The relative positions of the molecular size markers (kDa) are indicated to the left of the panels. Data shown are representative of at least three independent experiments ($n \geq 3$). Panel B. PC-3 cells were incubated with U46619 (1 μ M; 0–60 min) prior to immunoprecipitation with anti-TP α , anti-TP β or, as controls, with the pre-immune (IgG) sera. Thereafter, immunoprecipitates (upper panels) or equivalent aliquots of whole cell lysates (20 μ g/lane, lower panels) were IB with anti-PRK1, anti-PRK2 or anti-PRK3 antisera. Data $n \geq 3$. Panel C. Bar charts show the mean relative levels of PRK1 or PRK2 associated with the anti-TP α or anti-TP β immunoprecipitates, as determined by quantitative densitometry (\pm SEM), where levels associated with the respective immunoprecipitates in the absence of agonist are expressed as 1. The asterisks indicate where U46619 stimulation resulted in significant changes in complex-associated PRK1 or PRK2, where * & ** indicate $p < 0.05$ & $p < 0.01$, respectively. Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.4664>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: PKN3 Antibody [NBP1-30102] - PKN3 activity is important for stress fibers formation & is stimulated by the expression of p130Cas. (A) p130Cas^{-/-}-MEFs growing on FN-coated cover slips were co-transfected by GFP-p130Cas & mCherry-PKN3 fusion variant (WT, mPR, KD) or mCherry. After 48 h, cells were fixed & imaged by Leica TCS SP2 microscope (63×/1.45 oil objective). Stress fibers were visualized by Phalloidin (405) & focal adhesions by anti-Paxillin staining (2nd 633). Representative images are shown. Scale bars represent 20 μm. (B) p130Cas^{-/-}-MEFs or p130Cas^{-/-}-MEFs re-expressing p130Cas or transfected by GFP-fused p130Cas variants (WT, YE, dCCH) were lysed in RIPA buffer, blotted to nitrocellulose membrane, & analyzed for endogenous PKN3 activity by antibody anti-phosphoThr849 of PKN3 (pT849 PKN3). Expression of p130Cas mutants was verified by anti-p130Cas antibody & loading by anti-PKN3 & anti-actin antibody. (C) Densitometric quantification of PKN3 activity (pT849 PKN3 phosphorylation). The effect of p130Cas re-expression on PKN3 T849 phosphorylation was analyzed separately from the effect of transfected p130Cas mutants (indicated by a dotted line). Error bars indicate means ± SD from three independent experiments (four experiments for the left part). Statistical significance was evaluated by one-way repeated ANOVA followed by Turkey's post hoc test (*P < 0.05; **P < 0.01). (D) Lysates or (E) immunoprecipitates (by Flag sepharose) from p130Cas^{-/-}-MEFs re-expressing p130Cas & overexpressing PKN3 variants (WT, mPR, KD) were immunoblotted by anti-PKN3, anti-pT849 PKN3, & anti-Akt antibodies (loading control). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30422386>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



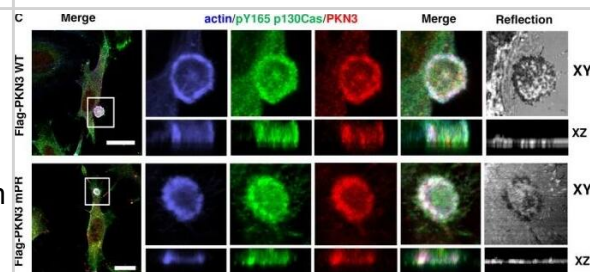
Immunocytochemistry/ Immunofluorescence: PKN3 Antibody [NBP1-30102] - PKN3 activity is important for stress fibers formation & is stimulated by the expression of p130Cas. (A) p130Cas^{-/-}-MEFs growing on FN-coated cover slips were co-transfected by GFP-p130Cas & mCherry-PKN3 fusion variant (WT, mPR, KD) or mCherry. After 48 h, cells were fixed & imaged by Leica TCS SP2 microscope (63×/1.45 oil objective). Stress fibers were visualized by Phalloidin (405) & focal adhesions by anti-Paxillin staining (2nd 633). Representative images are shown. Scale bars represent 20 μm. (B) p130Cas^{-/-}-MEFs or p130Cas^{-/-}-MEFs re-expressing p130Cas or transfected by GFP-fused p130Cas variants (WT, YE, dCCH) were lysed in RIPA buffer, blotted to nitrocellulose membrane, & analyzed for endogenous PKN3 activity by antibody anti-phosphoThr849 of PKN3 (pT849 PKN3). Expression of p130Cas mutants was verified by anti-p130Cas antibody & loading by anti-PKN3 & anti-actin antibody. (C) Densitometric quantification of PKN3 activity (pT849 PKN3 phosphorylation). The effect of p130Cas re-expression on PKN3 T849 phosphorylation was analyzed separately from the effect of transfected p130Cas mutants (indicated by a dotted line). Error bars indicate means ± SD from three independent experiments (four experiments for the left part). Statistical significance was evaluated by one-way repeated ANOVA followed by Turkey's post hoc test (*P < 0.05; **P < 0.01). (D) Lysates or (E) immunoprecipitates (by Flag sepharose) from p130Cas^{-/-}-MEFs re-expressing p130Cas & overexpressing PKN3 variants (WT, mPR, KD) were immunoblotted by anti-PKN3, anti-pT849 PKN3, & anti-Akt antibodies (loading control). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30422386>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



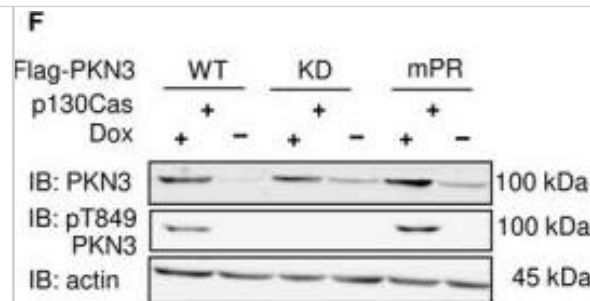
Western Blot: PKN3 Antibody [NBP1-30102] - PKN3 activity is important for stress fibers formation & is stimulated by the expression of p130Cas. (A) p130Cas^{-/-}-MEFs growing on FN-coated cover slips were co-transfected by GFP-p130Cas & mCherry-PKN3 fusion variant (WT, mPR, KD) or mCherry. After 48 h, cells were fixed & imaged by Leica TCS SP2 microscope (63×/1.45 oil objective). Stress fibers were visualized by Phalloidin (405) & focal adhesions by anti-Paxillin staining (2nd 633). Representative images are shown. Scale bars represent 20 μm. (B) p130Cas^{-/-}-MEFs or p130Cas^{-/-}-MEFs re-expressing p130Cas or transfected by GFP-fused p130Cas variants (WT, YE, dCCH) were lysed in RIPA buffer, blotted to nitrocellulose membrane, & analyzed for endogenous PKN3 activity by antibody anti-phosphoThr849 of PKN3 (pT849 PKN3). Expression of p130Cas mutants was verified by anti-p130Cas antibody & loading by anti-PKN3 & anti-actin antibody. (C) Densitometric quantification of PKN3 activity (pT849 PKN3 phosphorylation). The effect of p130Cas re-expression on PKN3 T849 phosphorylation was analyzed separately from the effect of transfected p130Cas mutants (indicated by a dotted line). Error bars indicate means ± SD from three independent experiments (four experiments for the left part). Statistical significance was evaluated by one-way repeated ANOVA followed by Turkey's post hoc test (*P < 0.05; **P < 0.01). (D) Lysates or (E) immunoprecipitates (by Flag sepharose) from p130Cas^{-/-}-MEFs re-expressing p130Cas & overexpressing PKN3 variants (WT, mPR, KD) were immunoblotted by anti-PKN3, anti-pT849 PKN3, & anti-Akt antibodies (loading control). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30422386>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: PKN3 Antibody [NBP1-30102] - PKN3 colocalizes with p130Cas in lamellipodia & podosome rosettes. Representative images are shown. (A) p130Cas^{-/-}-MEFs plated on fibronectin (FN) were transfected by GFP-p130Cas, CFP-LifeAct, & mCherry-PKN3WT or mCherry-PKN3 mPR & imaged live 24 h after transfection. White arrow indicates lamellipodia. Histogram of dotted straight line is shown. (B) Quantification of mCherry-PKN3 WT, mCherry-PKN3 mPR, & mCherry localization to lamellipodia (LifeAct as marker) was calculated as described in methods (values are mean ± SD from three independent experiments, n > 50 measurements – 3 per cell; ***P < 0.001, one-way ANOVA on ranks followed by Dunn's post hoc test). (C) Src-transformed p130Cas^{-/-}-MEFs co-expressing p130Cas (SC) & mouse Flag tagged PKN3 WT or Flag-PKN3 mPR are shown. Cells were grown on FN-coated coverslips for 48 h, fixed, & stained for p130Cas by anti-pTyr165 p130Cas antibody (pY165 p130Cas; 2nd 405), for actin by Phalloidin 488 & for Flag-PKN3 by anti-Flag antibody (2nd 633). Reflection (670 nm) indicates fibronectin degradation. All scale bars represent 20 μm. Cell were imaged by Leica TCS SP8 microscope system equipped with Leica 63×/1.45 oil objective. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30422386>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: PKN3 Antibody [NBP1-30102] - PKN3 overexpression regulates growth of MEFs, & this effect requires PKN3-p130Cas interaction. (A) Immunoblotted lysates from MEFs p130Cas^{-/-} or MEFs p130Cas^{-/-} re-expressing p130Cas (p130Cas⁺) treated by Doxycycline (Dox) to induce expression of mCherry-PKN3 or mCherry alone. p130Cas presence detected by anti-p130Cas antibody & mCherry epitope by anti-mCherry antibody. (B) Dynamics of mCherry-PKN3 expression after supplementation w/ Dox shown by immunoblot w/ anti-mCherry antibody. (C-E) Effect of induced mCherry-PKN3 expression on cell growth. Representative graphs showing growth of MEFs p130Cas^{-/-} re-expressing p130Cas (p130Cas⁺) (C) or MEFs p130Cas^{-/-} (D) measured in real-time using xCELLigence RTCA (real-time cell analysis) system instrument. (E) Quantification of cell growth change induced by mCherry-PKN3 expression ('-' indicates inducible mCherry expression used as negative control). Slope ratios reflecting cell growth calculated from log growth phase of cell growth (indicated by dotted lines; see C & D). (F) Immunoblotted lysates from MEFs p130Cas^{-/-} re-expressing p130Cas (p130Cas⁺) treated or not treated by Dox which induced expression of Flag-fused PKN3 variants (WT, mPR, KD, empty vector). Stimulated overexpression of PKN3 detected by anti-PKN3 antibody & its activity by antibody anti-pT849 PKN3. (G) Quantification of cell growth change stimulated by Dox-inducible expression of Flag-fused PKN3 variants (WT, mPR, KD) in MEFs p130Cas^{-/-} re-expressing p130Cas (p130Cas⁺). All error bars indicate means \pm SD calculated from 3 to 5 independent experiments (each in triplicates). Statistical significance always calculated between induced & noninduced cells & evaluated by one-way repeated ANOVA followed by Turkey post hoc test (***) $P < 0.001$). Image collected & cropped by CiteAb from following publication (<https://pubmed.ncbi.nlm.nih.gov/30422386>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Aine G O'Sullivan, Eamon P Mulvaney, B Therese Kinsella Regulation of protein kinase C-related kinase (PRK) signalling by the TP α and TP β isoforms of the human thromboxane A 2 receptor: Implications for thromboxane- and androgen- dependent neoplastic and epigenetic responses in prostate cancer. *Biochimica et biophysica acta. Molecular basis of disease* 2018-11-19 [PMID: 28108419]

Arang N, Lubrano S, Ceribelli M et al. High-throughput chemogenetic drug screening reveals PKC-RhoA/PKN as a targetable signaling vulnerability in GNAQ-driven uveal melanoma *Cell reports. Medicine* 2023-10-13 [PMID: 37858338] (WB, Human)

Browne CM, Jiang B, Ficarro SB et al. A Chemoproteomic Strategy for Direct and Proteome-Wide Covalent Inhibitor Target-Site Identification *J. Am. Chem. Soc.* 2019-01-09 [PMID: 30518210] (KO, WB, Human)

Gemperle J, Dibus M, Koudelkova L et al. The interaction of p130Cas with PKN3 promotes malignant growth *Mol Oncol.* [PMID: 30422386] (WB, Mouse)

O'Sullivan AG, Mulvaney EP, Hyland PB, Kinsella BT. Protein kinase C-related kinase 1 and 2 play an essential role in thromboxane-mediated neoplastic responses in prostate cancer. *Oncotarget* 2015-09-22 [PMID: 26296974]

Collazos A, Michael N, Whelan RD et al. Site recognition and substrate screens for PKN family proteins. *Biochem J*;438(3):535-43. 2011-09-15 [PMID: 21749319]



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 NBP1-30102

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG 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

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP1-30102

Earn gift cards/discounts by submitting a publication using this product:
www.novusbio.com/publications

