

# Product Datasheet

## KPNA3 Antibody NB100-81650

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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### Publications: 4

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**NB100-81650**

KPNA3 Antibody

Product Information	
Unit Size	0.1 ml
Concentration	0.2 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	TBS and 0.1% BSA
Target Molecular Weight	58 kDa

Product Description	
Description	Novus Biologicals Rabbit KPNA3 Antibody (NB100-81650) is a polyclonal antibody validated for use in IHC, WB and IP. Anti-KPNA3 Antibody: Cited in 4 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	3839
Gene Symbol	KPNA3
Species	Human
Immunogen	The immunogen recognized by this antibody maps to a region between residue 1 and 50 of human karyopherin alpha 3 using the numbering given in entry NP_002258.2 (GeneID 3839).

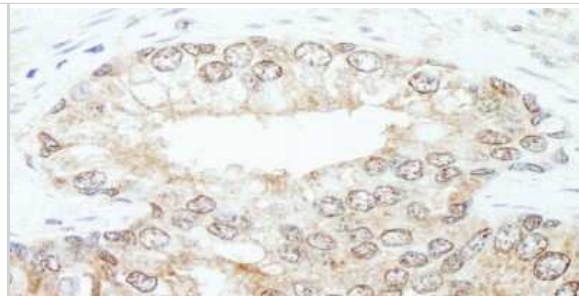
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:2000-1:10000, Immunohistochemistry 1:100 - 1:500, Immunoprecipitation 2-5 ug/mg lysate, Immunohistochemistry-Paraffin 1:100 - 1:500
Application Notes	Epitope retrieval with citrate buffer pH6.0 is recommended for FFPE tissue sections.

**Images**

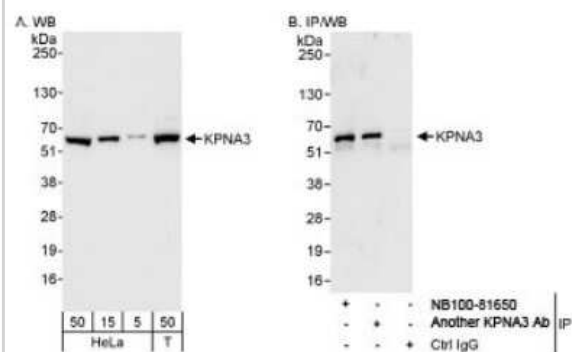
Western Blot: KPNA3 Antibody [NB100-81650] - Association of NCBP3 and NCBP2 with NCBP1 and proteins involved in RNA processing. Western blot analysis of representative GFP-precipitated proteins identified by AP-MS analysis. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/ncomms9192>), licensed under a CC-BY license.



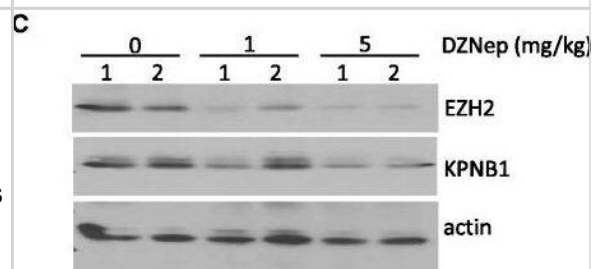
Immunohistochemistry-Paraffin: KPNA3 Antibody [NB100-81650] - Human prostate carcinoma. Antibody used at a dilution of 1:200.



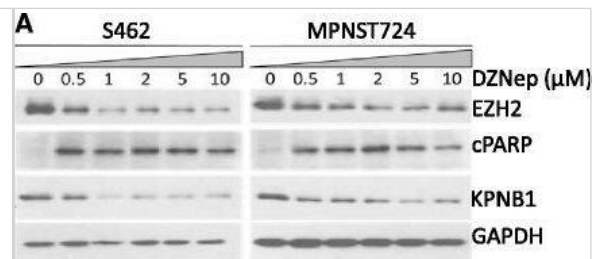
Western Blot: KPNA3 Antibody [NB100-81650] - Whole cell lysate from HeLa (5, 15 and 50 mcg for WB; 1 mg for IP, 20% of IP loaded) and 293T (T; 50 mcg) cells. NB100-81650 used for WB at 0.4 mcg/ml (A and B) and used for IP at 3 mcg/mg lysate.



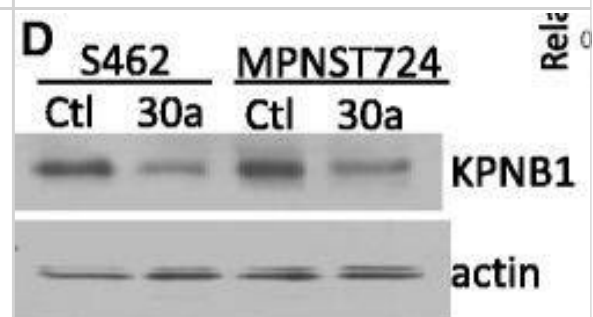
Western Blot: KPNA3 Antibody [NB100-81650] - DZNep suppressed MPNST724 xenograft tumor initiation & growth *in vivo*. (A) MPNST724 xenograft tumor groups treated with vehicle only, 1 mg/kg DZNep, or 5 mg/kg DZNep 13 weeks after subcutaneous injection (n = 9 mice per group). (B) Growth curves of tumors treated with vehicle only, 1 mg/kg DZNep, or 5 mg/kg DZNep over a period of 13 weeks. Mean  $\pm$  SD values are shown; \*p < 0.05, Student t test. (C) Western blot analyses of EZH2, KPNA1, & actin in tumor MPNST samples treated with vehicle only, 1 mg/kg DZNep, or 5 mg/kg DZNep. Image collected & cropped by CiteAb from the following publication (<http://molecular-cancer.biomedcentral.com/articles/10.1186/s12943-015-0325-1>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: KPNA3 Antibody [NB100-81650] - DZNep inhibited EZH2/miR-30d/KPNB1 signaling in MPNST cells. (A) Western blot analyses of EZH2, cleaved PARP (cPARP), KPNB1, & GAPDH (loading control) in MPNST724 & S462 cells treated with DZNep at increasing concentrations for 48 hours. (B) qRT-PCR analyses of miR-30d expression in MPNST724 & S462 cells treated with DZNep for 96 hours. miR-30d expression was normalized to SNORD47. Mean  $\pm$  SD values are shown (n = 3); \*p < 0.05, Student t test. (C) Promoter activity assay showed that DZNep treatment increased miR-30d promoter activity in S462 cells. Mean  $\pm$  SD values are shown (n = 3); \*p < 0.05; Student t test. (D) Luciferase reporter assay showed that DZNep treatment inhibited miR-30d target reporter activity in S462 cells. Mean  $\pm$  SD values are shown (n = 3); \*\*p < 0.01, Student t test. (E) Luciferase reporter assay indicated that DZNep treatment inhibited wild-type (WT) KPNB1 3'UTR reporter activity but not mutant (MT) KPNB1 3'UTR reporter activity in S462 cells. Mean  $\pm$  SD values are shown (n = 3); \*p < 0.05, Student t test. Image collected & cropped by CiteAb from the following publication (<http://molecular-cancer.biomedcentral.com/articles/10.1186/s12943-015-0325-1>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: KPNA3 Antibody [NB100-81650] - EZH2-regulated miR-30a targeted KPNB1 in MPNST cells. (A) Putative miR-30a & miR-30d target site in the wild-type KPNB1 3'UTR region. (B) qRT-PCR analyses of miR-30a in MPNST724 & S462 cells transfected with a negative control or EZH2 siRNA. miR-30a expression was normalized to SNORD47. Data are shown as mean  $\pm$  SD (n = 3); \*p < 0.05, Student t test. (C) qRT-PCR analyses of miR-30a in S462 & MPNST724 cells treated with DZNep for 96 hours. miR-30d expression was normalized to SNORD47. Mean  $\pm$  SD values are shown (n = 3); \*p < 0.05, Student t test. (D) Western blot analyses of KPNB1 & actin in S462 & MPNST724 cells transfected with a negative control (Ctl) or miR-30a (30a) mimics. (E) Luciferase reporter assay showed that miR-30a inhibited wild-type (WT) KPNB1 3'UTR reporter activity but not mutant (MT) KPNB1 3'UTR reporter activity in S462 cells. Mean  $\pm$  SD values are shown (n = 3); \*p < 0.05, Student t test. (F) qRT-PCR analyses of miR-30a expression in normal Schwann cells (NSC) & multiple MPNST cell lines (MPNST724, S462, STS26T, MPNST624, T265, & ST88-14). Image collected & cropped by CiteAb from the following publication (<http://molecular-cancer.biomedcentral.com/articles/10.1186/s12943-015-0325-1>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Gebhardt A, Habjan M, Benda C et al. mRNA export through an additional cap-binding complex consisting of NCBP1 and NCBP3. *Nat Commun* 2015-09-18 [PMID: 26382858] (WB, Human)

Zhang P, Yang X, Ma X et al. Antitumor effects of pharmacological EZH2 inhibition on malignant peripheral nerve sheath tumor through the miR-30a and KPNB1 pathway. *Mol Cancer* 2015-01-01 [PMID: 25890085] (IF/IHC)

Zhang P, Garnett J, Creighton CJ et al. EZH2-miR-30d-KPNB1 pathway regulates malignant peripheral nerve sheath tumour cell survival and tumorigenesis. *J. Pathol.* 2014-02-01 [PMID: 24132643] (WB, IHC-P, Human)

Okazaki K, Nakayama N, Nariai Y et al. Nuclear localization signal in a cancer-related transcriptional regulator protein NAC1. *Carcinogenesis* 2012-10-01 [PMID: 22665369]



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### **Products Related to NB100-81650**

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NBL1-12371	KPNA3 Overexpression Lysate
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

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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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