

# Product Datasheet

## TBK1 Antibody (108A429) - BSA Free NB100-56705

Unit Size: 0.1 mg

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

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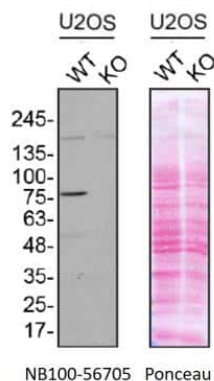
**NB100-56705**

TBK1 Antibody (108A429) - BSA Free

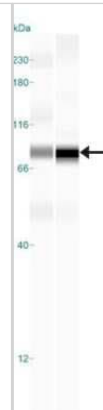
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	108A429
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	84 kDa
Product Description	
Host	Mouse
Gene Symbol	TBK1
Species	Human, Mouse, Rat, Bovine, Canine
Immunogen	A synthetic peptide corresponding to amino acids 563-577 (YYQFKKDKAERRLAYC) of human TBK1 was used as immunogen for this antibody (NP_037386).
Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockout Validated
Recommended Dilutions	Western Blot 1-2 ug/ml, Simple Western 10 ug/ml, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:20, Immunoprecipitation, Immunohistochemistry-Paraffin 1:10-1:500, Knockout Validated
Application Notes	In Western Blot this antibody detects a band at 80 kDa.  In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue.

**Images**

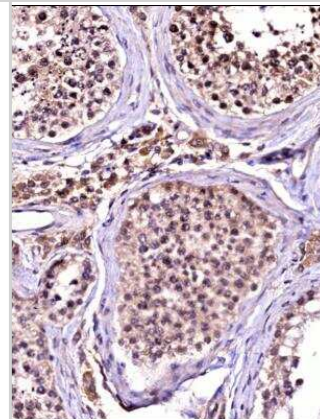
Knockout Validated: TBK1 Antibody (108A429) [NB100-56705] - Western blot using lysates from U2OS parental cell line and TBK1 knockout U2OS cell line (KO), collected in RIPA buffer. Nitrocellulose membrane was probed with Mouse Anti-Human/Mouse/Rat TBK1 Monoclonal Antibody (Catalog # NB100-56705) at 1 ug/ul O/N at 4C, followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody and ECL detection. A specific band at 83 kDa was detected for TBK1 in the parental U2OS cell line, but is not detectable in knockout U2OS cell line. The Ponceau stained transfers of each blot are shown to confirm equal protein loading. Image, protocol and testing courtesy of YCharOS Inc. (ycharos.com).



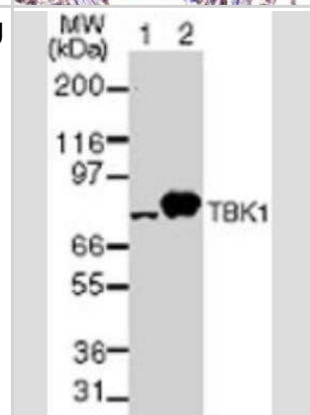
Simple Western: TBK1 Antibody (108A429) [NB100-56705] - Lane view shows a specific band for NAK/TBK1 in 0.5 mg/ml of Daudi (left) and Raw 264.7 (right) lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system. \* Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody



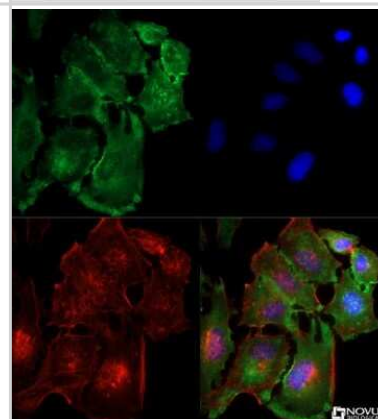
Immunohistochemistry-Paraffin: TBK1 Antibody (108A429) [NB100-56705] - Analysis of FFPE human testis tissue section using Peripheral Node Addressin antibody (clone MECA-79R) at 1:200. The staining was developed with HRP-DAB detection method and the counterstaining was performed using hematoxylin.



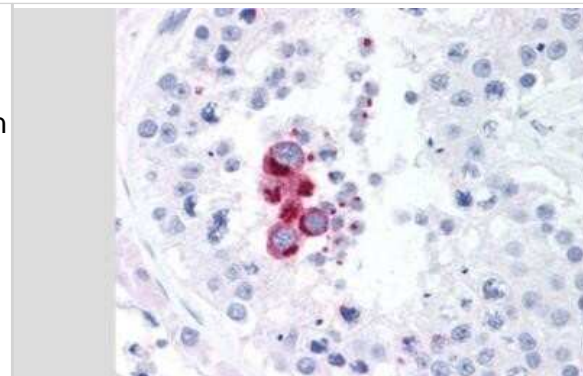
Western Blot: TBK1 Antibody (108A429) [NB100-56705] - Analysis using Azide and BSA Free version of NB100-56705. Lysate from 293 cells untransfected (lane 1) and transfected with human TBK1 cDNA (lane 2) probed with TBK1 antibody at 2 ug/ml.



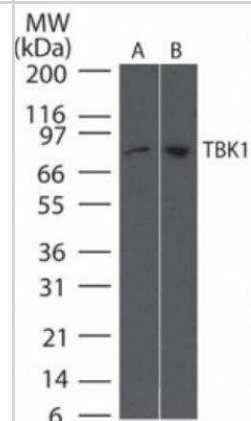
Immunocytochemistry/Immunofluorescence: TBK1 Antibody (108A429) [NB100-56705] - Antibody was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red). A dilution of 1:10 was used. Image objective 40x.



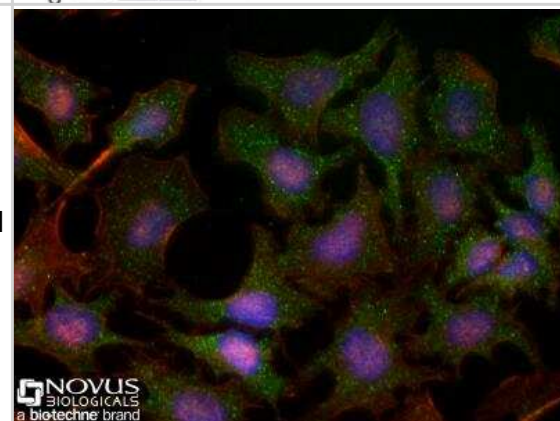
Immunohistochemistry-Paraffin: TBK1 Antibody (108A429) [NB100-56705] - Immunohistochemistry: TBK1 Antibody (108A429) - Azide and BSA Free [NBP2-33243] - Staining on human testis (Formalin-Fixed Paraffin-Embedded (FFPE)) Image from the Azide and BSA Free version of this antibody.



Western Blot: TBK1 Antibody (108A429) [NB100-56705] - Analysis of Human Daudi (A) and mouse RAW (B) cell lysate probed with TBK1 antibody at 2 ug/ml.



Immunocytochemistry/Immunofluorescence: TBK1 Antibody (108A429) [NB100-56705] - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton X-100. The cells were incubated with anti-TBK1 at 20 ug/ml overnight at 4C and detected with an anti-mouse DyLight 488 (Green) at a 1:500 dilution. Actin was detected with Phalloidin 568 (Red) at a 1:200 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



## Publications

Hage A, Bharaj P, van Tol S et al. The RNA helicase DHX16 recognizes specific viral RNA to trigger RIG-I-dependent innate antiviral immunity *Cell reports* 2022-03-08 [PMID: 35263596] (WB)

Arner EN, Westcott JM, Hinz S et al. AXL-TBK1 driven nuclear AKT3 promotes metastasis *bioRxiv* 2022-01-01 (FLOW, Mouse)

Xing J, Zhang A, Du Y et al. Identification of poly(ADP-ribose) polymerase 9 (PARP9) as a noncanonical sensor for RNA virus in dendritic cells *Nature communications* 2021-05-11 [PMID: 33976210] (WB, Mouse)

Deng M, Tam JW, Wang L et al. TRAF3IP3 negatively regulates cytosolic RNA induced anti-viral signaling by promoting TBK1 K48 ubiquitination *Nat Commun* 2020-05-04 [PMID: 32366851] (IP, Rat)

Shi D, Chen M, Liu L et al. Anti-influenza A virus mechanism of three representative compounds from *Flos Trollii* via TLRs signaling pathways *J Ethnopharmacol* 2020-01-28 [PMID: 32004628] (WB, Mouse)

van Tol S, Atkins C, Bharaj P et al. VAMP8 Contributes to the TRIM6-Mediated Type I Interferon Antiviral Response during West Nile Virus Infection *J. Virol.* 2020-01-06 [PMID: 31694946] (WB)

Wuerth JD, Habjan M, Wulle J et al. NSs protein of Sandfly fever Sicilian phlebovirus counteracts interferon induction by masking the DNA-binding domain of interferon regulatory factor 3. *J. Virol.* 2018-09-19 [PMID: 30232186] (WB, Human)

Gulen MF, Koch U, Haag SM et al. Signalling strength determines proapoptotic functions of STING *Nat Commun* 2017-09-05 [PMID: 28874664] (WB)

Kwon D, Park E, Sesaki H, Kang SJ et al. Carbonyl cyanide 3-chlorophenylhydrazone (CCCP) suppresses STING-mediated DNA sensing pathway through inducing mitochondrial fission *Biochem. Biophys. Res. Commun.* 2017-08-30 [PMID: 28859978] (WB)

Ogasawara N, Sasaki M, Itoh Y et al. Rebamipide suppresses TLR-TBK1 signaling pathway resulting in regulating IRF3/7 and IFN-alpha/beta reduction. *J Clin Biochem Nutr.* [PMID: 21373269] (WB, Human)

Berthet J, Damien P, Hamzeh-Cognasse H et al. Toll-like receptor 4 signal transduction in platelets: novel pathways. *Br J Haematol.* [PMID: 20618335] (WB, Human)

Slowicka K, Vereecke L, McGuire C et al. Optineurin deficiency in mice is associated with increased sensitivity to *Salmonella* but does not affect proinflammatory NF- $\kappa$ B signaling. *Eur. J. Immunol.* 2015-12-17 [PMID: 26677802] (WB, Mouse)

### Details:

TBK1 antibody was used for WB analysis of bone marrow-derived macrophages ( from OPTN  $+/+$  and  $??$  mice) after stimulation with 10  $\mu$ g/mL poly(I,C) or 100 ng/mL LPS (Figure 3A).

More publications at <http://www.novusbio.com/NB100-56705>



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### **Products Related to NB100-56705**

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NB100-56705B	TBK1 Antibody (108A429) [Biotin]

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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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