# **Product Datasheet**

# p97/VCP Antibody NB100-1558

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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**Publications: 12** 

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## NB100-1558

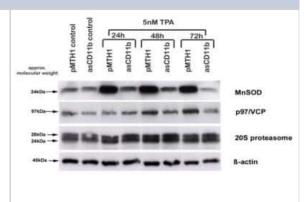
p97/VCP Antibody

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|-----------------------------|---|
| 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     | 89 kDa  |
| Product Description         |   |
| Description                 | Novus Biologicals Rabbit p97/VCP Antibody (NB100-1558) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and IP. Anti-p97/VCP Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee. |
| Host                        | Rabbit  |
| Gene ID                     | 7415  |
| Gene Symbol                 | VCP   |
| Species                     | Human, Mouse, Rat, Zebrafish  |
| Reactivity Notes            | Zebrafish reactivity reported in scientific literature (PMID: 30010465). Mouse, Rat reactivity reported in scientific literature (PMID: 20833645).  |
| Immunogen                   | The immunogen recognized by this antibody maps to a region between residue 750 and the C-terminus (residue 806) of human Valosin-Containing Protein using the numbering given in entry NP_009057.1 (GeneID 7415).                                 |
| Product Application Details |   |
| Applications                | Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation   |
| Recommended Dilutions       | Western Blot 1:2000 - 1:10000, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:100 - 1:500, Immunoprecipitation 2-5 ug/mg of lysate, Immunohistochemistry-Frozen  |
| Application Notes           | ICC/IF reactivity reported in (PMID: 23297223), IHC-Frozen reactivity reported in (PMID: 20833645).   |
| i e                         |   |

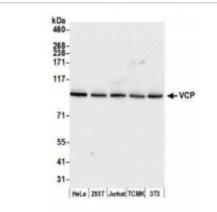


#### **Images**

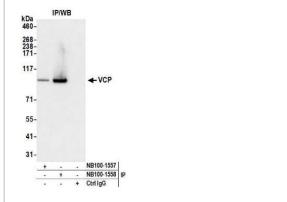
Western Blot: p97/VCP Antibody [NB100-1558] - Zymographic assay of gelatinase activity. Medium supernatants of 20ml culture medium (medium control) as well as 20 ml conditioned medium from 107 U937 cells, pMTH1-U937 cells and asCD11b-U937 cells in the absence or presence of 5nM TPA for 72 h, respectively, were 18-fold concentrated and subjected to SDS-PAGE containing 2 mg/ml of gelatine. Following incubation with MMP enzyme buffer, the gels were stained with 0.4% Coomassie blue and afterwards destained again to visualize the appearance of gelatinase activity by light bands against the dark background. The molecular weight markers on both sides of the gels indicate the size of the MMPs exhibiting gelatinase activities. Image collected and cropped by CiteAb from the following publication (https://biosignaling.biomedcentral.com/articles/10.1186/1478-811X-10-13) licensed under a CC-BY license.



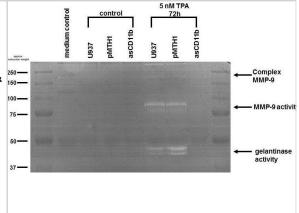
Western Blot: p97/VCP Antibody [NB100-1558] - Whole cell lysate (15 ug) from HeLa, 293T, Jurkat, mouse TCMK-1, and mouse NIH3T3 cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit antiVCP antibody used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 1 second.



Western Blot: p97/VCP Antibody [NB100-1558] - Detection of human VCP by western blot of immunoprecipitates. Samples: Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer. Antibodies: Affinity purified rabbit anti-VCP antibody NB100-1558 used for IP at 3 ug per reaction. VCP was also immunoprecipitated by rabbit anti-VCP antibody NB100-1557. For blotting immunoprecipitated VCP, NB100-1558 was used at 0.4 ug/ml. Detection: Chemiluminescence with an exposure time of 1 second.



Western Blot: p97/VCP Antibody [NB100-1558] - Zymographic assay of gelatinase activity. Medium supernatants of 20 ml culture medium (medium control) as well as 20 ml conditioned medium from 107 U937 cells, pMTH1-U937 cells & asCD11b-U937 cells in the absence or presence of 5nM TPA for 72 h, respectively, were 18-fold concentrated & subjected to SDS-PAGE containing 2 mg/ml of gelatine. Following incubation with MMP enzyme buffer, the gels were stained with 0.4% Coomassie blue & afterwards destained again to visualize the appearance of gelatinase activity by light bands against the dark background. The molecular weight markers on both sides of the gels indicate the size of the MMPs exhibiting gelatinase activities. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/22607136), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



#### **Publications**

Garg J, Sporkova A, Hecker M, Korff T Tracing G-Protein-Mediated Contraction and Relaxation in Vascular Smooth Muscle Cell Spheroids Cells 2022-12-28 [PMID: 36611924]

Saha I, Yuste-Checa P, Da Silva Padilha M et al. The AAA+ chaperone VCP disaggregates Tau fibrils and generates aggregate seeds in a cellular system Nature communications 2023-02-02 [PMID: 36732333]

Berschneider K Connecting the functions of the proteasome and mitochondria in the lung Thesis 2016-01-01 (WB, Mouse)

Leto D, Morgens D, Zhang L et al. Parallel genome-wide CRISPR analysis identifies a role for heterotypic ubiquitin chains in ER-associated degradation bioRxiv 2018-06-17 (WB, Human)

Leto DE, Morgens DW, Zhang L et al. Genome-wide CRISPR Analysis Identifies Substrate-Specific Conjugation Modules in ER-Associated Degradation Mol. Cell 2018-12-06 [PMID: 30581143] (Human)

Kustermann M, Manta L, Paone C et al. Loss of the novel Vcp (valosin containing protein) interactor Washc4 interferes with autophagy-mediated proteostasis in striated muscle and leads to myopathy in vivo. Autophagy 2018-08 -16 [PMID: 30010465] (WB, Zebrafish)

Bersuker K, Peterson CWH, To M et al. A Proximity Labeling Strategy Provides Insights into the Composition and Dynamics of Lipid Droplet Proteomes. Dev. Cell 2017-12-19 [PMID: 29275994] (Human)

Regensburger M, Turk M, Pagenstecher A et al. VCP-related multisystem proteinopathy presenting as early-onset Parkinson disease Neurology 2017-07-19 [PMID: 28724584] (Human)

Clemen CS, Tangavelou K, Strucksberg KH et al. Strumpellin is a novel valosin-containing protein binding partner linking hereditary spastic paraplegia to protein aggregation diseases. Brain 2010-10-01 [PMID: 20833645] (IHC-Fr, Rat, Mouse)

Olzmann JA, Richter CM, Kopito RR et al. Spatial regulation of UBXD8 and p97/VCP controls ATGL-mediated lipid droplet turnover Proc Natl Acad Sci U S A 2013-01-07 [PMID: 23297223] (ICC/IF, Human)

Mandel K, Otte A, Hass R. Involvement of CD11b integrin in the alteration of metabolic factors after phorbol ester stimulation of human myeloid leukemia cells Cell Commun Signal 2012-07-11 [PMID: 22607136] (WB, Human)

Christianson JC, Olzmann JA, Shaler TA et al. Defining human ERAD networks through an integrative mapping strategy. Nature Cell Biology. 2011-11-27 [PMID: 22119785]





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## **Products Related to NB100-1558**

NBL1-17707 p97/VCP Overexpression Lysate

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.

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