Product Datasheet

USP22 Antibody - BSA Free
NBP1-49644

Unit Size: 0.1 ml

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

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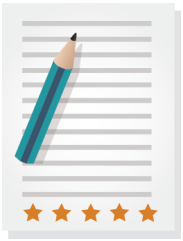
Updated 9/9/2025 v.20.1



NBP1-49644

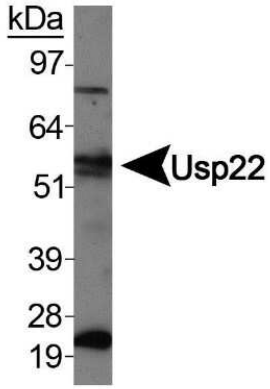
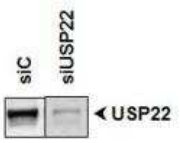
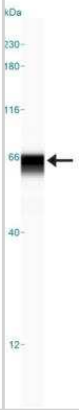
USP22 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS

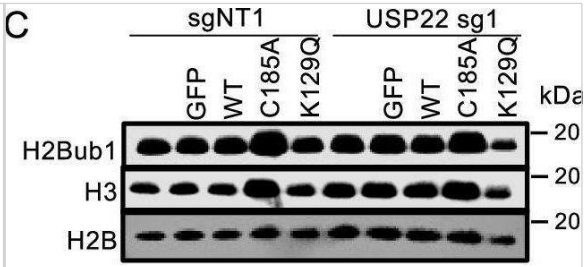
Product Description	
Description	Novus Biologicals Rabbit USP22 Antibody - BSA Free (NBP1-49644) is a polyclonal antibody validated for use in IHC, WB, Simple Western, IP and ChIP. Anti-USP22 Antibody: Cited in 9 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	23326
Gene Symbol	USP22
Species	Human, Mouse
Immunogen	A genomic peptide made to an internal region of the human USP22 protein (within residues 100-205). [Swiss-Prot Q9H3R0]
Notes	Manufactured by Genomic Antibody Technology™. GAT FAQs

Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Chromatin Immunoprecipitation, Gel Super Shift Assays, Immunohistochemistry, Proximity Ligation Assay, Chromatin Immunoprecipitation (ChIP)
Recommended Dilutions	Western Blot 2 ug/ml, Simple Western 1:25, Chromatin Immunoprecipitation reported in scientific literature (PMID 34155658), Immunohistochemistry, Immunohistochemistry-Paraffin reported in scientific literature (PMID 24197134), Gel Super Shift Assays reported in scientific literature, Proximity Ligation Assay reported in scientific literature (PMID 33198416), Chromatin Immunoprecipitation (ChIP)
Application Notes	In Western blot, a band is seen ~59 kDa. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in HeLa lysate 1.0 mg/mL, separated by Size, antibody dilution of 1:25, apparent MW was 65 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

Western Blot: USP22 Antibody [NBP1-49644] - Western blot analysis of Usp22 in HeLa whole cell extracts.	
Western Blot: USP22 Antibody [NBP1-49644] - analysis of USP22 in HeLa whole cell lysate using anti-USP22 antibody. The primary antibody was used at a dilution of 1:500 and incubated overnight at 4C. Image from verified customer review.	
Simple Western: USP22 Antibody [NBP1-49644] - Simple Western lane view shows a specific band for USP22 in 1.0 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.	

Catalytic activity of USP22 is not a barrier to reprogramming.A Diagram showing USP22 domains and mutated amino acid positions. B Western blot image showing USP22 protein levels after USP22 overexpressions in both non-targeting and USP22 targeting gRNA expressing fibroblasts. Actin was used as a loading control. C Western blot image showing H2Bub protein levels after USP22 overexpressions in both non-targeting and USP22 targeting gRNA expressing fibroblasts. Histones H3 and H2B were used as loading controls. D Fold change in reprogramming efficiency upon USP22 overexpressions in both wild-type and USP22 knockout background. Triangular images above the bars are sections of representative Tra-1-60-stained wells. Error bars indicate the error of mean. n = 3, independent experiments for KR mutations, n = 4 for CA and KQ mutations in USP22 knockout background, and n = 5 for other comparisons. Two-sided t-test was performed between sgNT1 and USP22 sg1 without any overexpression and p-value is 0.0153. Two-sided t-test was performed between USP22 sg1 expressing cells without overexpression and WT, C185A, K129Q, and K129R and p-value is 0.0129, 0.0054, 0.0264, and 0.0052, respectively. E Western blot image showing H2Bub and H2Aub protein levels after ATXN7L3 or ENY2 knockouts in fibroblasts. H2B was used as a loading control. F Fold change in reprogramming efficiency upon ATXN7L3, ENY2, USP27X, or USP51 knockouts. Triangular images above the bars are sections of representative Tra-1-60-stained wells. Error bars indicate the error of mean. n = 5, independent experiments. Two-sided t-test shows p-value smaller than 0.0001 for ENY2 sg1 and sg2 compared to sgNT1. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/40102626), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Cortez JT, Montauti E, Shifrut E et al. CRISPR screen in regulatory T cells reveals modulators of Foxp3 Nature 2020-06-18 [PMID: 32499641] (Western Blot, Immunohistochemistry-Paraffin, Human)

Terezia Vcelkova, Wolfgang Reiter, Martha Zylka, David M Hollenstein, Stefan Schuckert, Markus Hartl, Christian Seiser GSE1 links the HDAC1/CoREST co-repressor complex to DNA damage Nucleic Acids Research 2023-11-27 [PMID: 37878419]

Vcelkova T, Reiter W, Zylka M et al. GSE1 links the HDAC1/CoREST co-repressor complex to DNA damage bioRxiv 2023-03-14 (Western Blot)

Kim JM, yang yS, Xie J et al. Regulation of sclerostin by the SIRT1 stabilization pathway in osteocytes Cell death and differentiation 2022-02-15 [PMID: 35169297]

Stanek TJ, Gennaro VJ, Tracewell MA et al. The SAGA complex regulates early steps in transcription via its deubiquitylase module subunit USP22 The EMBO journal 2021-06-22 [PMID: 34155658] (Chemotaxis)

Roedig J, Kowald L, Juretschke T, et al. USP22 controls necroptosis by regulating receptor-interacting protein kinase 3 ubiquitination EMBO reports 2020-12-28 [PMID: 33369872] (WB, Human)

Sikorski K, Mehta A et al. A high-throughput pipeline for validation of antibodies. Nat Methods 2018-01-11 [PMID: 30377371] (Human)

Details:
Antibody validation based on denaturing gel electrophoresis of biotinylated cell lysates (PAGE) followed by mass spectrometry (MS) and antibody array analysis (MAP).

McCann JJ, Vasilevskaya IA, Poudel Neupane N et al. USP22 functions as an oncogenic driver in prostate cancer by regulating cell proliferation and DNA repair Cancer Res. 2019-11-18 [PMID: 31740444] (WB, IP, Mouse)

Vijayalingam S, Subramanian T, Zhao LJ et al. The cellular protein complex associated with a transforming region of E1A contains c-MYC. J. Virol. 2015-11-11 [PMID: 26559831] (WB, Human)

Schrecengost RS, Dean JL, Goodwin JF et al. USP22 regulates oncogenic signaling pathways to drive lethal cancer progression. Cancer Res. 2014-01-01 [PMID: 24197134] (IHC-P, WB, Human)

Procedures

Western Blot protocol specific for Usp22 antibody (NBP1-49644)
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

*Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

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Products Related to NBP1-49644

NB800-PC1	HeLa Whole Cell 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

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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