Product Datasheet

NDM-1 Antibody - BSA Free
NBP1-77688

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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Publications: 7

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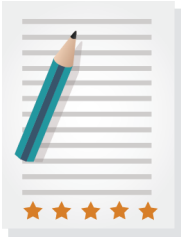
Updated 9/9/2025 v.20.1



NBP1-77688

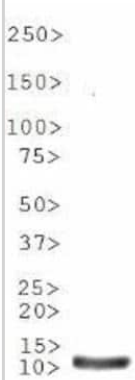
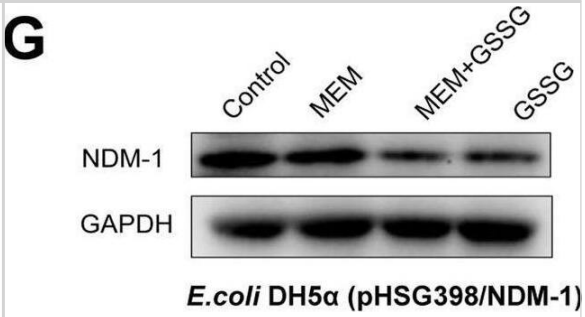
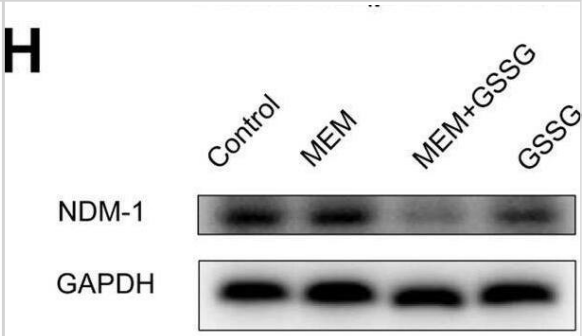
NDM-1 Antibody - BSA Free

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, 30% Glycerol

Product Description	
Description	Novus Biologicals Rabbit NDM-1 Antibody - BSA Free (NBP1-77688) is a polyclonal antibody validated for use in WB. Anti-NDM-1 Antibody: Cited in 6 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Species	Mouse, Bacteria, E. coli
Reactivity Notes	E. coli reactivity reported in scientific literature (PMID: 30323356). Use in Mouse reported in scientific literature (PMID:32014252).
Immunogen	A synthetic peptide made to a C-terminal region of the E. coli bla-NDM-1 protein (within residues 100-158). [NCBI BAJ10873]

Product Application Details	
Applications	Western Blot
Recommended Dilutions	Western Blot 1:1000
Application Notes	In Western blot a band is seen ~12 kDa in recombinant protein. Note: This enzyme may form multimers.

Images

Western Blot: NDM-1 Antibody [NBP1-77688] - Analysis of NDM1 in partial recombinant NDM1 protein.	
Mechanism of oxidized glutathione (GSSG) in combination with carbapenem antibiotics.(A, B) GSSG + meropenem induces reactive oxygen species (ROS) in blaNDM-1-carrying E. coli (n = 3 biological replicates). (C, D) Survival of blaNDM-1-carrying E. coli treated by the combination of GSSG + meropenem and ROS inhibition (n = 3 biological replicates). (E, F) Transcription analysis of blaNDM-1 in resistant strains treated with GSSG, meropenem, and combination therapy (n = 3 biological replicates). (G, H) Expression of NDM-1 decreased after the treatment of GSSG + meropenem. (I, J) Intracellular concentrations of meropenem in blaNDM-1-carrying E. coli (n = 3 biological replicates). Data Information: Data are presented as mean +/- SD. One-way ANOVA analysis, *p < 0.05, **p < 0.01. Source data are available online for this figure. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/38565805), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Mechanism of oxidized glutathione (GSSG) in combination with carbapenem antibiotics.(A, B) GSSG + meropenem induces reactive oxygen species (ROS) in blaNDM-1-carrying E. coli (n = 3 biological replicates). (C, D) Survival of blaNDM-1-carrying E. coli treated by the combination of GSSG + meropenem and ROS inhibition (n = 3 biological replicates). (E, F) Transcription analysis of blaNDM-1 in resistant strains treated with GSSG, meropenem, and combination therapy (n = 3 biological replicates). (G, H) Expression of NDM-1 decreased after the treatment of GSSG + meropenem. (I, J) Intracellular concentrations of meropenem in blaNDM-1-carrying E. coli (n = 3 biological replicates). Data Information: Data are presented as mean +/- SD. One-way ANOVA analysis, *p < 0.05, **p < 0.01. Source data are available online for this figure. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/38565805), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Dongyang Ye, Xiaowei Li, Liang Zhao, Saiwa Liu, Xixi Jia, Zhinan Wang, Jingjing Du, Lirui Ge, Jianzhong Shen, Xi Xia Oxidized glutathione reverts carbapenem resistance in bla NDM-1 -carrying Escherichia coli EMBO Molecular Medicine 2024-04-02 [PMID: 38565805]

Tang B, Yang A, Liu P et al. Outer Membrane Vesicles Transmitting blaNDM-1 Mediate the Emergence of Carbapenem-Resistant Hypervirulent Klebsiella pneumoniae Antimicrobial agents and chemotherapy 2023-05-17 [PMID: 37052502] (WB)

Details:
Dilution: 1:1000

Wu S, Yu T, Zhou R et al. Adjuvant-like biomimetic nanovesicles combat New Delhi metallo-beta-lactamases (NDMs) producing superbugs infections Nano Today 2021-06-01

Sun H, Zhang Q, Wang R et al. Resensitizing carbapenem- and colistin-resistant bacteria to antibiotics using auranofin Nat Commun 2020-10-16 [PMID: 33067430]

Zalucki Y, Jen F, Pegg C et al. Evolution for improved secretion and fitness may be the selective pressures leading to the emergence of two NDM alleles Biochemical and Biophysical Research Communications 2020-01-01 [PMID: 32014252] (WB, Mouse)

Kong HK, Pan Q, Lo WU et al. Fine-tuning carbapenem resistance by reducing porin permeability of bacteria activated in the selection process of conjugation Sci Rep 2018-10-15 [PMID: 30323356] (WB, E. coli)

Wang R, Lai TP, Gao P et al. Bismuth antimicrobial drugs serve as broad-spectrum metallo-b-lactamase inhibitors Nat Commun 2018-01-30 [PMID: 29382822] (WB, Bacteria)

Procedures

Western Blot protocol specific for NDM1 antibody (NBP1-77688)
NDM-1 Antibody:
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%.

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 NBP1-77688

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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