

PRODUCT INFORMATION



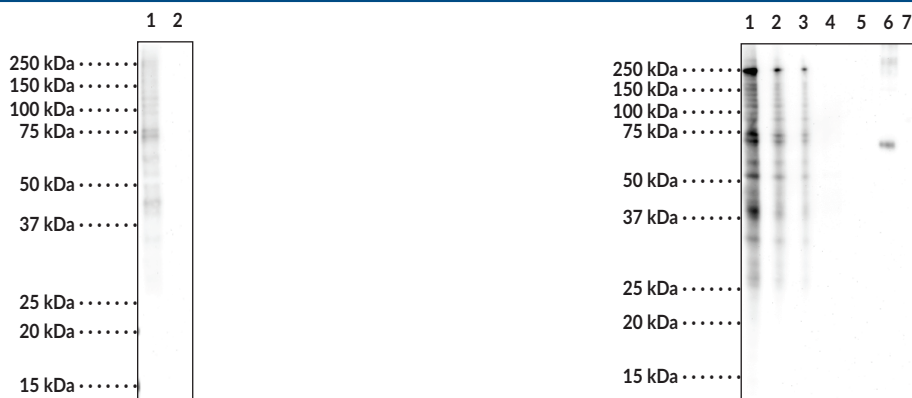
Anti-DNP Polyclonal Antibody

Item No. 25864

Overview and Properties

Contents:	This vial contains 500 µl of affinity-purified polyclonal antibody.
Synonyms:	2,4-Dinitrophenol, 2,4-DNP
Immunogen:	2,4-Dinitrophenol
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	ELISA, Immunoprecipitation (IP), and Western blot (WB); the recommended starting dilution for ELISA and WB is 1:1,000, and the recommended use for IP is 50 µl per test. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Anti-DNP pAb - DNP-conjugated HeLa IP (20 µl)
Lane 2: Anti-DNP pAb - Non-conjugated HeLa IP (20 µl)

5 µg of Anti-DNP Polyclonal Antibody was used to immunoprecipitate 50 µg of either DNP-conjugated HeLa or non-conjugated HeLa lysate. pAb-conjugates were captured using 100 µl protein A. pAb-conjugates were removed from protein A with 1X SDS-PAGE loading buffer and run on a reducing 12% acrylamide gel. Conjugates were detected by Western blot using 0.5 µg/ml Anti-DNP Monoclonal Antibody (Item No. 25863) and appropriate HRP-conjugated secondary antibody.

Lane 1: DNP-conjugated HeLa lysate (2.5 µg)
Lane 2: DNP-conjugated HeLa lysate (1 µg)
Lane 3: DNP-conjugated HeLa lysate (0.5 µg)
Lane 4: DNP-conjugated HeLa lysate (0.1 µg)
Lane 5: Non-conjugated HeLa lysate (5 µg)
Lane 6: DNP-conjugated BSA (0.01 µg)
Lane 7: Non-conjugated BSA (1 µg)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

2,4-Dinitrophenol (DNP) is a hapten that induces a strong immune response when attached to proteins or peptides.^{1,2} DNP can be incorporated at protein carbonyls *via* covalent linkage of DNP to carbonyl groups using 2,4-dinitrophenylhydrazine (DNPH) or through site-specific incorporation of unnatural amino acids that contain a DNP functional group.^{1,3} Immunization with DNP-modified proteins or tumor cells induces antibody formation *in vivo* and has been used in the design of vaccines for clearance of disease-causing cells or viruses and induction of autoimmune diseases such as colitis and thyroiditis.^{4,5} Cayman's Anti-DNP Polyclonal Antibody can be used for ELISA, Western blot, and immunoprecipitation applications.

References

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3. Yang, T., Zhong, P., Qu, L., *et al.* Preparation and identification of anti-2, 4-dinitrophenyl monoclonal antibodies. *J. Immunol. Methods* **313(1-2)**, 20-28 (2006).
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5. Manne, J., Mastrangelo, M.J., and Berd, D. TCR rearrangement in lymphocytes infiltrating melanoma metastases after administration of autologous dinitrophenyl-modified vaccine. *J. Immunol.* **169(6)**, 3407-3412 (2002).

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