ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

DNP (2-4-Dinitrophenol) Antibodies

Cat. # DNP11-S | Mouse polyclonal Anti-DNP unpurified ascites | **SIZE**: 100 ul

Asthma is a chronic lung disease characterized by airway hyper-responsiveness (AHR) to allergens, airway edema, and increased mucus secretion. Increased levels of circulating IgE and IgG1 antibody and a propensity to allergic responses, atopy, are associated with the development of asthma. Animal models of AHR, where control of the timing of exposure to the initiating antigen, the use of a defined allergen trigger, and genetic manipulation are likely to enhance the understanding of AHR. Dinitrophenol (DNP) has long been employed as a model immunogen as a single antigen to reduce the complexity of modeling AHR.

One of the primary aspects of the immune response is the interaction of antigens with lymphocytes to induce the formation of antibodies, that in turn makes the antigen harmless. Much of our current understanding of the antibody response to antigens has been derived by using the antibody-hapten model. One known model uses the dinitrophenyl (DNP) group. Immunization of many mammalian species with DNP-protein conjugates results in production of antibodies specific for DNP and the amino acid side chains to which it is attached.

DNP conjugates (DNP-KLH or DNP-BSA) useful for the production of antibodies specific for DNP and hemocyanin or BSA. DNP-immunization produced a significant variation in the amount and antibody class (IgGs, IgA, IgE, IgM) among strains, and under various experimental conditions. DNP preparations (purity and supplier), doses (amount per injection), routes (intramuscular, intravenous, aerosol, liposome entrapped, polymerized etc), frequency of exposure (single injections, multiple etc) may induce a defined class of antibody and its level may vary as well. DNP-induced antibody production has been used to assess the immune status of normal and immune-compromised animals.

Source of Antigen and Antibodies

Antigen	DNP-KLH (keyhole limpet hemocyanin, cat # DNP25-N-10)
Ab Host/type	Mouse, IgG Unpurified ascites (Cat # DNP11-S)
2-ab	**Goat Anti-mouse IgG-HRP conjugate** Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control	**Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control**

Form & Storage of Antibodies/Peptide Control

Unpurified antiserum/ascites

100ul solution Powder
Buffer: contains 0.05% sodium azide
Reconstitute powder in 100 ul PBS

Storage

Short-term: unopened, undiluted liquid vials for 1-2a weeks at 4oC. Powder at 4oC for 3-6 months.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder.

Suggested Applications

Western blot: 0.5-5 ug/ml for detecting DNP-modified proteins using ECL. DNP-modified known protein standards are available for controls (cat # DNP45-C).

ELISA: 0.1-1 ug/ml for detecting DNP-modified proteins

Species Specificity

Antibody # DNP11-S reacts with DNP. DNP-BSA protein conjugate (Cat # DNP35-N-10) is also available to test antibody by ELISA or Western. It may also react with KLH protein from related species. Species crossreactivity is not experimentally confirmed. Anti-KLH antibodies produced in mouse, goat and sheep are also available.

**All product are for In vitro research use only.*

Related material available from ADI

DNP-KLH and DNP-BSA proteins conjugates.

DNP-modified protein standards for Western.

Anti-DNP antibodies quantitation ELISA kits for mouse, rabbit, goat etc.

Anti-KLH antibodies quantitation ELISA kits for mouse, rabbit, goat etc.

ELISA kits for the detection of anti-DNP in mouse and rats

DNP11-S 70305A