ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

DNP (2-4-Dinitrophenol)-Labeled Protein Standards

Cat. # DNP45-C DNP-labeled protein standards **SIZE**: 100 ul

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.

In order to study the status of oxidized proteins and their mol wt, ADI has formulated the known proteins and modified them with DNP. These proteins can be directly loaded on gels and visualized with any one of the anti-DNP antibodies (Cat # DNP11-A, DNP12-A, DNP13-A, DNP14-M, DNP15-M).

Source of Antigen and Antibodies

Cat # DNP45-C contains a mixture of the following proteins.

Phosphorylase B	97 Kda
BSA	68 kda
Ovalbumin	43 kda
Carbonic anhydrase	29 kda
Trypsin inhibitor	21 kda

Cat # DNP45-C (10 ul) run on 10% SDS-PAGE and visualized with rabbit anti-DNP (Cat # DNP13-A) at 1:1000 dilution and ECL.

For WB +ve control, Cat # DNP45-C, is formulated in SDS-PAGE sample buffer (reduced). It is not suitable for ELISA or other applications where native protein is required. It is supplied in 100 ul/vial. For WB, heat once and load 10 ul/lane and visualize with appropriate antibodies. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the control solution prior to heating and loading on gels.

This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Store frozen in suitable aliquots. Do not freeze, thaw, or hear repeatedly.

Storage

Short-term: unopened, undiluted liquid vials for 1-2 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

Primarily used for Western.

**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.

DNP45-C 80529A

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA;

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400 Fax: +91-11-42208444 Email: customerservice@lifetechindia.com Website: www.lifetechindia.com