



dinitrophenyl (10.12): sc-69698

BACKGROUND

Dinitrophenyl (DNP) is a synthetic cellular metabolic poison that uncouples oxidative phosphorylation by acting as a proton ionophore that carries protons across the mitochondrial membrane. This action causes a rapid consumption of energy without generation of ATP, and thus the energy of the proton gradient is lost as heat. Dinitrophenyl is considered an environmental contaminant as it can pollute the air from automobile exhaust, burning of certain industrial substances and from reaction of nitrogen in air with other atmospheric chemicals. Commercial dinitrophenyl is mainly used for scientific research, but has also been used as a photographic developer and to make dyes, other organic chemicals, wood preservatives, explosives and insect control substances. Dinitrophenyl is often used in biochemistry research to aid in the exploration of the regulation of bioenergetics in different organisms.

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

dinitrophenyl (10.12) is a mouse monoclonal antibody raised against dinitrophenyl.

PRODUCT

Each vial contains 200 µg IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

dinitrophenyl (10.12) is available conjugated to agarose (sc-69698 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-69698 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-69698 PE), fluorescein (sc-69698 FITC), Alexa Fluor® 488 (sc-69698 AF488), Alexa Fluor® 546 (sc-69698 AF546), Alexa Fluor® 594 (sc-69698 AF594) or Alexa Fluor® 647 (sc-69698 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-69698 AF680) or Alexa Fluor® 790 (sc-69698 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

dinitrophenyl (10.12) is recommended for detection of dinitrophenyl-γ2b by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.