

## Monoclonal Antibody to DNP - IRDYE800CW

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| <b>Alternate names:</b> | 2, 4-Dinitrophenol  |
| <b>Catalog No.:</b>     | AM08477D8-N   |
| <b>Quantity:</b>        | 0.1 ml  |
| <b>Concentration:</b>   | 1.0 mg/ml (by UV absorbance at 280 nm)  |
| <b>Background:</b>      | Dinitrophenol is an uncoupler, it has the ability to separate the flow of electrons and the pumping of H <sup>+</sup> ions for ATP synthesis. This means that the energy from electron transfer cannot be used for ATP synthesis. 50 years ago, DNP was given as a drug to help patients lose weight.   |
| <b>Host / Isotype:</b>  | Hamster / IgG   |
| <b>Clone:</b>           | 3E10  |
| <b>Immunogen:</b>       | DNP conjugated KLH  |
| <b>Format:</b>          | <p><b>State:</b> Lyophilized purified IgG fraction</p> <p><b>Purification:</b> Affinity Chromatography followed by extensive dialysis against the buffer.</p> <p><b>Buffer System:</b> 0.02M Potassium Phosphate, 0.15M Sodium Chloride, pH 7.2 containing 10 mg/ml BSA (IgG and Protease free) as stabilizer and 0.01% (w/v) Sodium Azide as preservative.</p> <p><b>Label:</b> IRDYE800CW – IRDye(R) 800CW</p> <p><i>Absorption / Emission:</i> 774 nm / 800 nm</p> <p><i>Molar Ratio:</i> 2.0 moles IRDye(TM)800CW/mole of Goat IgG</p> <p><b>Reconstitution:</b> Restore with 0.1 mL of deionized water (or equivalent).</p>  |
| <b>Applications:</b>    | <p>This product is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. This product is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms.</p> <p><u><b>Recommended Dilutions:</b></u></p> <p>FLISA: 1/5,000-1/10,000.</p> <p>Western Blot: 1/10,000-1/25,000.</p> <p><b>Note:</b> Fluorescence technology is widely used to detect proteins. However, many common visible fluorophores often result in considerable background fluorescence in the visible range. Visible fluorophores are rarely used for membrane-based protein detection because of this high background. IRDye® 800 and IRDye® 700DX antibody and reagent conjugates are specifically designed for protein detection methods that use longer-wavelength, near-infrared (IR) fluorophores to visualize proteins in western blotting and other applications. Very low background fluorescence in the IR range provides for a much higher signal-to-noise ratio than visible fluorophores. Detection levels in the picogram range on Western blots rival the sensitivity of chemiluminescence on film. IRDye® 800 conjugates are optimized for the Odyssey® Infrared Imaging System developed by LI-COR. IRDye® 800 conjugates are also suitable for immunofluorescence microscopy using commercially</p> |

available excitation/emission filters in the 780nm/820nm range. Dual simultaneous labeling in western blots or microscopy is achieved when IRDye® 800 conjugates are used in conjunction with IRDye® 700DX or DyLight™680 conjugates. IRDye® 800 and IRDye® 700DX conjugates provide an ultra-sensitive and convenient alternative to standard chemiluminescent protein detection methods, as well as a valuable tool for multicolor imaging.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:**

Assay by SDS-PAGE resulted in a single protein band.  
The antibody reacts with DNP but not with carrier protein.

**Storage:**

Prior to reconstitution store at 2-8°C.  
Following reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.  
Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.

**General Readings:**

1. Modified from LI-COR Biosciences, Lincoln, NE (Conjugation).