

**Product Specification Sheet****Product:** IRDye™ 800 Conjugated Protein A Purified Armenian Hamster Monoclonal Anti-DNP**Code:** 200-B32-380**Lot #** 999854**Size:** 0.1 mg**Physical State:** Lyophilized**Antibody Concentration:** 1.0 mg/ml (by UV absorbance at 280 nm)**Clone:** 3E10**Subclass/Isotype:** IgG (isotype not determined)**Label:** IRDye™ 800 (MW 1166.2)**Fluorochrome/Protein Ratio:** 3.1 moles IRDye™ 800/mole of Armenian Hamster IgG**Absorption Wavelength:** 774 nm (in PBS)**Emission Wavelength:** 800 nm**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**Stabilizer:** 10 mg/ml BSA IgG and Protease free**Preservative:** 0.01% (w/v) Sodium Azide

**Background Information:** Epitope tags are short peptide sequences that are easily recognized by tag-specific antibodies. Due to their small size, epitope tags do not affect the tagged protein's biochemical properties. Most often sequences encoding the epitope tag are included with target DNA at the time of cloning to produce fusion proteins containing the epitope tag sequence. This allows anti-epitope tag antibodies to serve as universal detection reagents for any tag containing protein produced by recombinant means. This means that anti-epitope tag antibodies are a useful alternative to generating specific antibodies to identify, immunoprecipitate or immunoaffinity purify a recombinant protein. The anti-epitope tag antibody is usually functional in a variety of antibody-dependent experimental procedures. Expression vectors producing epitope tag fusion proteins are available for a variety of host expression systems including bacteria, yeast, insect and mammalian cells. Rockland Immunochemicals produces anti-epitope tag antibodies against many common epitope tags including Myc, GST, GFP, 6X His, MBP, FLAG and HA. Rockland Immunochemicals also produces antibodies to other tags including FITC, Rhodamine (TRITC), DNP and biotin.

**Application(s):** 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 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 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 Cy5.5™ conjugates. IRDye™ 800 conjugates provide an ultra-sensitive and convenient alternative to standard chemiluminescent protein detection methods, as well as a valuable tool for multicolor imaging. This monoclonal antibody reacts specifically with DNP (2,4-dinitrophenol). The antibody reacts with free DNP, DNP conjugated to carriers such as thyroglobulin or BSA, and detects the presence of DNP in proteins and nucleic acids.

**Recommended Dilution(s):** This product was tested by immunoblot using DNP conjugated protein spotted to nitrocellulose membrane. A 1:5,000 dilution is sufficient to detect 12-25 pg of immobilized DNP conjugated protein. Researchers should determine optimal titers for other applications.

**Storage Conditions:** Store vial at 4° C prior to restoration. Restore with 0.1 ml of deionized water (or equivalent). Centrifuge product if not completely clear after standing at room temperature. This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of restoration.

**Purity and Specificity:** This product is an IgG fraction antibody purified from ascites or tissue culture supernate by affinity chromatography followed by extensive dialysis against the buffer stated above. Assay by SDS-PAGE resulted in a single protein band. The antibody reacts with DNP but not with carrier protein.

**Immunogen:** This monoclonal antibody was produced after repeated immunizations of armenian hamsters with DNP conjugated KLH.

**Hybridoma:** Produced by the fusion between armenian hamster splenocytes and mouse myeloma SP2/0 cells using conventional hybridoma technology.

**Conjugation Reference:** LI-COR Biosciences, Lincoln, NE.

**Related Product(s):**

#600-101-098	Affinity Purified Anti-BIOTIN (GOAT)
#600-401-382	Affinity Purified Anti-6X HIS TAG (Rabbit)
#600-101-200	Affinity Purified Anti-GST (GOAT)
#600-101-215	Affinity Purified Anti-GFP (GOAT)
#600-101-096	Affinity Purified Anti-FITC (GOAT)
#200-301-246	Protein A Purified Mouse Mab Anti-TRITC
#200-B01-380	Protein A Purified Hamster Mab Anti-DNP
#611-703-127	HRP Anti-Rabbit IgG [H&L] MX10 (DONKEY)
#611-132-122	IRDye800 Anti-Rabbit IgG [H&L] MX10 (GOAT)

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