

## Polyclonal Antibody to HA Epitope Tag (YPYDVPDYA) - IRDYE800

<b>Alternate names:</b>	HA Tag, HA-Tag, Hemagglutinin Tag
<b>Catalog No.:</b>	AP09230D8-N
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	1.0 mg/ml (by UV absorbance at 280 nm)
<b>Background:</b>	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.
<b>Host / Isotype:</b>	Rabbit / IgG
<b>Immunogen:</b>	9-aa epitope tag peptide YPYDVPDYA (114-122) from hemagglutinin influenza conjugated to KLH using maleimide <b>Remarks:</b> A residue of cysteine was added to the carboxy terminal end to facilitate coupling.
<b>Format:</b>	<b>State:</b> Lyophilized Ig fraction <b>Purification:</b> Affinity chromatography <b>Buffer System:</b> 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2; 10 mg/ml BSA IgG and Protease free; 0.01% (w/v) Sodium Azide <b>Label:</b> IRDYE800 – IRDye(TM)800 (MW 1166.2) <i>Absorption / Emission:</i> 774 nm (in PBS) / 800 nm <i>Molar Ratio:</i> 3.0 moles IRDye(TM)800/mole of Rabbit IgG <b>Reconstitution:</b> Restore with 0.1 ml of deionized water (or equivalent).
<b>Applications:</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(TM)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(TM)800 conjugates are optimized for the Odyssey® Infrared Imaging System developed by LI-COR. IRDye(TM)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(TM)800 conjugates are used in conjunction with Cy5.5(TM) conjugates. IRDye(TM)800 conjugates provide an ultra-sensitive and convenient alternative to standard chemiluminescent protein detection methods, as well as a valuable tool for multicolor imaging. Anti-HA is optimally suited for monitoring the expression of HA tagged fusion proteins. As such, anti-HA/HA can be used to identify fusion proteins containing the HA epitope. The antibody recognizes the HA epitope tag fused to the amino-terminus of targeted proteins as is expressed in many commonly used expression vectors. Immunofluorescence.

Western blot: 1:10,000 to 1:25,000 is suggested for this product to detect 12-25 pg of immobilized protein.

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

**Specificity:**

This antibody is directed against HA epitope tag and is useful in determining its presence in various assays. Anti-HA tag antibody detects over-expressed proteins containing the HA epitope tag. To date this antibody has reacted with all HA tagged proteins so far tested. The antibody recognizes the HA-tag (Tyr-Pro-Tyr- Asp-Val-Pro-Asp-Tyr-Ala) fused to either the amino- or carboxy- termini of targeted proteins in transfected or transformed cells.

**Storage:**

Store vial (undiluted) at 2-8 ° C. Centrifuge product if not completely clear after standing at room temperature.

Shelf life: One year from despatch.

**General Readings:**

(Conjugation) LI-COR Biosciences, Lincoln, NE.

**Pictures:**

IRDyeTM800 Conjugated Affinity Purified Rabbit-anti-HA EPITOPE TAG polyclonal antibody detects recombinant protein containing the HA epitope tag present in 5.0 µl of lysate. A 4-20% gradient gel was used to separate the protein by SDS-PAGE. The protein was transferred to nitrocellulose using standard methods. After blocking the membrane was probed with a 1:5,000 dilution of the antibody for 1 h at room temperature. LICOR's Odyssey® Infrared Imaging System was used to scan and process the image.

