

Polyclonal Antibody to HA Epitope Tag (YPYDVPDYA) - IRDYE700DX

Alternate names:	HA Tag, HA-Tag, Hemagglutinin Tag
Catalog No.:	AP09230D7-N
Quantity:	0.1 mg
Concentration:	1.0 mg/ml (by UV absorbance at 280 nm)
Background:	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 biochemical properties of the tagged protein. 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.
Host / Isotype:	Rabbit / IgG
Immunogen:	9-aa epitope tag peptide (aa 114-122) from hemagglutinin influenza conjugated to KLH using maleimide. AA Sequence: YPYDVPDYA Remarks: A residue of cysteine was added to the carboxy terminal end to facilitate coupling.
Format:	State: Lyophilized Ig fraction Purification: Affinity chromatography; purification of the polyclonal antibody results in very low background levels in assays and low cross-reactivity with other cellular proteins. Buffer System: 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 Label: IRDYE700DX <i>Absorption / Emission:</i> 689 nm / 700 nm <i>Molar Ratio:</i> 2.0 moles IRDye® 700DX/mole of Rabbit IgG Reconstitution: Restore with 0.1 ml of deionized water (or equivalent).
Applications:	Immunofluorescence. Western blot (In western blotting of bacterial extracts, the antibody does not cross-react with endogenous proteins.). ELISA. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** This antibody is directed against the HA motif and is useful in determining its presence in various assays. It detects over-expressed proteins containing the HA epitope tag. To date, this antibody has reacted with all HA-tagged proteins tested.
- Add. Information:** 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 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 Cy5.5(TM) 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. 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 the construction in many commonly used expression vectors.
- Storage:** Store vial at 2-8 °C prior to restoration. Following restoration product can be stored undiluted at 2-8 °C for up to one month or (in aliquots) at -20 °C or below. Avoid repeated freezing and thawing. 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.
(General) Field, J., et al. (1988) Mol. Cell Biol. 8:2159-2165.