

Polyclonal Antibody to 6xHistidine Epitope Tag (HHHHHH) - DyLight680

Alternate names:	6xHis-Tag, HHHHHH Tag, HIS6 Tag, His Tag
Catalog No.:	R1181DL8
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 tagged proteins 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.
Host:	Rabbit
Immunogen:	Synthetic peptide corresponding to the 6X HIS epitope tag (H-H-H-H-H-H) conjugated to KLH using maleimide.
Format:	State: Lyophilized purified Ig fraction. Buffer System: 0.02M Potassium Phosphate, 0.15M Sodium Chloride, pH 7.2 containing 10 mg/ml BSA (IgG and Protease free) and 0.01% (w/v) Sodium Azide. Label: DyLight680 – DyLight(TM) 680 (MW 950) <i>Absorption / Emission:</i> 682 nm / 715 nm <i>Molar Ratio:</i> 2.8 moles DyLight(TM) 680 per mole of Rabbit IgG Reconstitution: Restore with 0.1 ml of deionized water (or equivalent).
Applications:	Anti-6X His is optimally suited for monitoring expression of His-tagged fusion proteins. As such, anti-6X His/6X His can be used to identify fusion proteins containing the 6X His epitope. The antibody recognizes the His tag fused either to the amino- or carboxy- termini of targeted proteins. This antibody has been tested by ELISA and Western blotting against both the immunizing peptide and His-containing recombinant proteins. Although not tested, this antibody is likely functional for Immunoprecipitation and Immunocytochemistry. The emission spectra for this DyLight™ conjugate match the principle output wavelengths of most common fluorescence instrumentation. Recommended Dilutions: Western Blot: >1/20,000. ELISA: >1/10,000.

Immunofluorescence: >1/5,000.

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

Specificity:

This antibody is directed against the 6X HIS epitope tag and is useful in determining its presence in over expressed proteins in various assays. The antibody recognizes the 6X HIS epitope tag (His-His-His-His-His-His) fused to either the amino- or carboxy- termini of targeted proteins in transfected or transformed cells.

Storage:

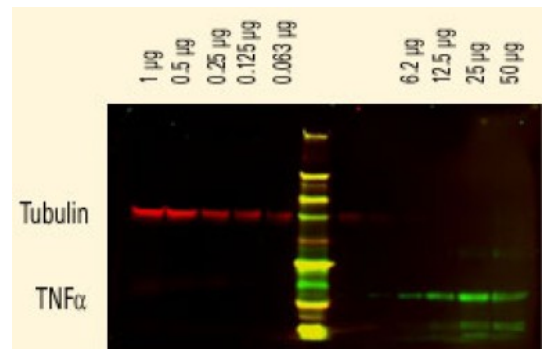
Prior to reconstitution store at 2-8°C. Following reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings:

1. Modified from Thermo Fisher Scientific Inc, Rockford, IL (Conjugation).







Pictures:

DyLight(TM) dyes can be used for two-color Western Blot detection with low background and high signal. Anti-tubulin was detected using a DyLight(TM)680 conjugate. Anti-TNFalpha was detected using a DyLight(TM)800 conjugate. The image was captured using the Odyssey(R) Infrared Imaging System developed by LI-COR.



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Properties of DyLight™ Fluorescent Dyes:

Emission	Color	DyLight™ Dye	Ex/Em (nm)	ϵ (M ⁻¹ cm ⁻¹)	Similar Dyes
Blue		405	400/420	30,000	Alexa™ 405, Cascade Blue
Green		488	493/518	70,000	Alexa™ 488, Cy2®, FITC
Yellow		549	550/568	150,000	Alexa™ 546, Alexa 555, Cy3®, TRITC
Red		649	646/674	250,000	Alexa™ 647, Cy5®
Near Infrared		680	682/715	140,000	Alexa™ 680, Cy5.5®, IRDye™ 700
Infrared		800	770/794	270,000	IRDye™ 800

DyLight™ 680 Fluorescence Spectra:

