

R1181**Polyclonal Antibody to 6xHistidine Epitope Tag (HHHHHH) - Aff - Purified**

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 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.
Host:	Rabbit
Immunogen:	6X His epitope tag peptide H-H-H-H-H conjugated to KLH using maleimide
Format:	State: Liquid (sterile filtered) purified Ig fraction. Purification: Affinity Chromatography Buffer System: 0.02M Potassium Phosphate, 0.15M Sodium Chloride, pH 7.2 Preservatives: 0.01% (w/v) Sodium Azide Stabilizers: None
Applications:	Anti-6X His is optimally suited for monitoring expression of His-tagged fusion 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. <u><i>Recommended Dilutions:</i></u> ELISA: 1/10,000-1/40,000. Western blot: 1/500-1/1,000. Immunohistochemistry: 1/500-1/2,000. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This polyclonal anti-6X His tag antibody detects over-expressed proteins containing the 6X His epitope tag. To date, this antibody has reacted with all His tagged proteins so far tested. In western blotting of bacterial extracts, the antibody does not cross-react with endogenous proteins. The antibody recognizes the His tag fused either to the amino- or carboxy-termini of targeted proteins.

Storage: Store 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. Yi CE, Ba L, Zhang L, Ho DD, Chen Z. Single amino acid substitutions in the severe acute respiratory syndrome coronavirus spike glycoprotein determine viral entry and immunogenicity of a major neutralizing domain. *J Virol.* 2005 Sep;79(18):11638-46. PubMed PMID: 16140741.

Pictures: **Figure 1.** Anti-6X His epitope tag polyclonal antibody detects His-tagged recombinant proteins by western blot. The blot was blocked with 3% BSA in TBST for 45 min at RT. Antibody was incubated with blot at a 1/1,000 dilution in TBST with 3% BSA for 1 hour at RT. Detection occurred using HRP Goat-anti-Rabbit IgG diluted 1/80,000 in blocking buffer for 30 min at RT. Lane 1 was loaded with 12-Epitope Tag Protein Marker Lysate which has the His epitope tag incorporated through a C-terminal linkage (~42 kDa). Lane 2 was loaded with His-SUMO-GFP recombinant protein which has the His epitope tag incorporated through an N-terminal linkage (~40 kDa). A 4-20% gradient gel was used to resolve the protein by SDS-PAGE. Proteins were transferred to nitrocellulose using standard methods. Molecular weights were estimated by comparison to standards (lane M).

