

AM20706PU-N**Monoclonal Antibody to 6xHistidine Epitope Tag (HHHHHH) - Aff - Purified**

Alternate names:	6xHis-Tag, HHHHHH Tag, HIS6 Tag, His Tag
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	Expression vectors are frequently used to encode hybrid fusion proteins consisting of a eukaryotic target protein and a specialized region designed to aid in the purification and visualization of the target protein. A system that has proven to be very successful relies on the insertion of a six histidine (His6) sequence in the N-terminus of the encoded protein, allowing for efficient coupling to Ni ⁺⁺ -chelating resins and purification by single step affinity chromatography. This polyhistidine sequence can then be removed by specific cleavage at sites recognized by enzymes such as thrombin or enterokinase, permitting the separation of the target protein from the polyhistidine tag. Visualization of such fusion proteins can be achieved by utilizing antibodies generated against specific peptide sequences downstream from the multiple cloning site.
Host / Isotype:	Mouse / IgG2b
Clone:	HIS.H8
Immunogen:	Synthetic peptide (KLH-coupled) containing the His epitope 6x His (H-H-H-H-H-H).
Format:	State: Liquid purified IgG fraction Purification: Affinity Chromatography Buffer System: 10mM PBS, pH 7.2 Preservatives: 0.05% Sodium Azide
Applications:	Western blot: 1/1000-1/4000. Immunoprecipitation: 1/200-1/400. Immunostaining: 1/200-1/400. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	His-tag monoclonal antibody recognizes His-tagged tagged proteins overexpressed in cells, including both amino-or carboxy-termini of targeted proteins in transfected mammalian cells. Reacts with Human, Mouse, Rat and Others.
Storage:	Upon receipt, store undiluted (in aliquots) at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	1. Terpe K. Overview of tag protein fusions: from molecular and biochemical fundamentals to commercial systems. Appl Microbiol Biotechnol. 2003 Jan;60(5):523-33. Epub 2002 Nov 7. PubMed PMID: 12536251. 2. Xu L, Liu Y, He X. Expression and purification of soluble human programmed death-1 in Escherichia coli. Cell Mol Immunol. 2006 Apr;3(2):139-43. PubMed PMID:

16696901.

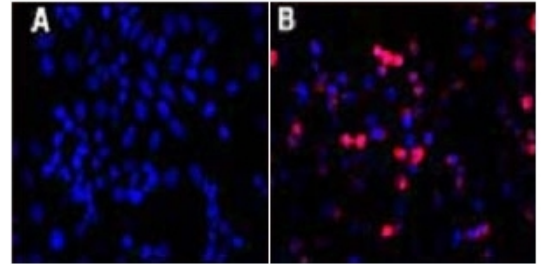
3. Els Conrath K, Lauwereys M, Wyns L, Muyldermans S. Camel single-domain antibodies as modular building units in bispecific and bivalent antibody constructs. *J Biol Chem.* 2001 Mar 9;276(10):7346-50. Epub 2000 Oct 25. PubMed PMID: 11053416.

4. Maniattis, T., et al. 1982. *Molecular Cloning.* Cold Spring Laboratory, Cold Spring Harbor, NY.

5. Hochuli E. Large-scale chromatography of recombinant proteins. *J Chromatogr.* 1988 Jul 1;444:293-302. PubMed PMID: 3060478.

Pictures:

Immunofluorescence staining of His Tag fusion protein in 293 cells using His tag antibody. A: untransfected Control B: Transfected



Western blot analysis using 6X His tag antibody of 293 cells transfected with His- Tagged vector (Lane 2) and untransfected control (Lane 1).

