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HIS Tag Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1010A

Product Information

Application	WB, E
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	6AT18

Additional Information

Target/Specificity	Purified recombinant HIS-tagged fusion protein and poly-HIS peptide were used to produced this monoclonal antibody.
Dilution	WB~~1:4000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HIS Tag Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

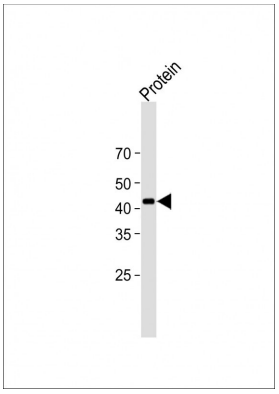
Background

Epitope tags consisting of short sequences recognized by well-characterized monoclonal antibodies have been widely used in the study of protein expression in various systems. The 6xHIS tag (HHHHHH), recognized by the monoclonal antibody clone 6AT18 provides an established example of this application. 6xHIS-tagged fusion proteins are easily purified from cell lysates by affinity chromatography using Nickel-Sepharose resin. Abgent's anti-6xHIS monoclonal antibody provides a simple solution to detect the expression of HIS-tagged fusion proteins in cells.

References

Hochuli E, Doebeli H, and Schacher A. New metal chelate absorbent selective for proteins and peptides containing neighboring histidine residues. J. Chromatogr. 1987;411:177-184.

Images



All lanes: Anti-HIS Tag at 1:1000 dilution + Protein whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution. Observed band size: 42 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of lysates from 12tag protein , This demonstrates the His tagged antibody detected the His tagged protein (arrow).

Citations

- Characteristics and functions of glyceraldehyde 3-phosphate dehydrogenase S-nitrosylation during controlled aging of elm and Arabidopsis seeds
- Development of activity-based probes for the protein deacylase Sirt1
- Overexpression of the persimmon abscisic acid β-glucosidase gene (DkBG1) alters fruit ripening in transgenic tomato
- Structural and biochemical characterization of the exopolysaccharide deacetylase Agd3 required for Aspergillus fumigatus biofilm formation
- Immunization with the basic membrane protein (BMP) family ABC transporter elicits protection against Enterococcus faecium in a murine infection model
- Universal Biofactor-Releasing Scaffold Enabling in Vivo Reloading.
- SatS is a chaperone for the SecA2 protein export pathway.
- Regulation of mitochondrion-associated cytosolic ribosomes by mammalian mitochondrial ribonuclease T2 (RNASET2).
- Plasmodium falciparum-CD36 structure-function relationships defined by ortholog scanning mutagenesis.
- VirB8 homolog TraE from plasmid pKM101 forms a hexameric ring structure and interacts with the VirB6 homolog TraD.
- hnRNP R and its main interactor, the noncoding RNA 7SK, coregulate the axonal transcriptome of motoneurons.
- Thiol Starvation induces redox-mediated dysregulation of biofilm components.
- Metabolically-derived lysine acylations and neighboring modifications tune BET bromodomain binding to histone H4.
- Suppressing ABA uridine diphosphate glucosyltransferase (SlUGT75C1) alters fruit ripening and the stress response in tomato.
- A chemical genetic screen uncovers a small molecule enhancer of the N-acylethanolamine degrading enzyme, fatty acid amide hydrolase, in Arabidopsis.
- A simple strategy for extracellular production of CotA laccase in Escherichia coli and decolorization of simulated textile effluent by recombinant laccase.
- Screening and molecular evolution of a single chain variable fragment antibody (scFv) against Citreoviridin toxin.
- γ-aminobutyric acid type A (GABAA) receptor subunits play a direct structural role in synaptic contact formation via their N-terminal extracellular domains.
- Early doors (Edo) mutant mouse reveals the importance of period 2 (PER2) PAS domain structure for circadian pacemaking.
- Construction of pTM series plasmids for gene expression in Brucella species.
- Implications of human TRPM8 channel gating from menthol binding studies of the sensing domain.
- 131I therapy mediated by sodium/iodide symporter combined with kringle 5 has a synergistic therapeutic effect on glioma.
- Cyclin-dependent kinase 5 activates guanine nucleotide exchange factor GIV/Girdin to orchestrate migration-proliferation dichotomy.
- TRAP150 interacts with the RNA-binding domain of PSF and antagonizes splicing of numerous PSF-target genes in T

cells.

- Venom allergen 5 is Associated With Deltamethrin Resistance in Culex pipiens pallens (Diptera: Culicidae).
- Efficient soluble expression of active recombinant human cyclin A2 mediated by E. coli molecular chaperones.
- Region-Specific Activation of oskar mRNA Translation by Inhibition of Bruno-Mediated Repression.
- Novel mechanism of hemin capture by Hbp2, the hemoglobin-binding hemophore from Listeria monocytogenes.
- The disulfide bonding system suppresses CsgD-independent cellulose production in Escherichia coli.
- Bem1p contributes to secretory pathway polarization through a direct interaction with Exo70p.
- Development of a functional antibody by using a green fluorescent protein frame as the template.
- Synthesis of phenoxyacyl-ethanolamides and their effects on fatty acid amide hydrolase activity.
- Characterization and expression of a GDSL-like lipase gene from Brassica napus in Nicotiana benthamiana.
- Engineering production of functional scFv antibody in E. coli by co-expressing the molecule chaperone Skp.
- The synaptobrevin homologue Snc2p recruits the exocyst to secretory vesicles by binding to Sec6p.
- Methylation of the PTPRO gene in human hepatocellular carcinoma and identification of VCP as its substrate.
- Semiquinone and cluster N6 signals in His-tagged proton-translocating NADH:ubiquinone oxidoreductase (complex I) from Escherichia coli.
- Protein export by the mycobacterial SecA2 system is determined by the preprotein mature domain.
- Recombinant Bacillus subtilis that grows on untreated plant biomass.
- Biochemical analysis of the canonical model for the mammalian circadian clock.
- Analysis of androgen receptor SUMOylation.
- Multiple ATR-Chk1 pathway proteins preferentially associate with checkpoint-inducing DNA substrates.
- Caenorhabditis elegans ortholog of the p24/p22 subunit, DNC-3, is essential for the formation of the dynactin complex by bridging DNC-1/p150(Glued) and DNC-2/dynamitin.

- Expression of two Listeria monocytogenes antigens (P60 and LLO) in Lactococcus lactis and examination for use as live vaccine vectors.
- Tipin-replication protein A interaction mediates Chk1 phosphorylation by ATR in response to genotoxic stress.
- The extracellular matrix glycoprotein elastin microfibril interface located protein 2: a dual role in the tumor microenvironment.
- Allosteric gating of Son of sevenless activity by the histone domain.
- The human Tim/Tipin complex coordinates an Intra-S checkpoint response to UV that slows replication fork displacement.
- Role of structural plasticity in signal transduction by the cryptochrome blue-light photoreceptor.