10320 Camino Santa Fe, Suite A
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GLP Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1049a

Specification

GLP Antibody - Product Information

Application	**WB, E**
Primary Accession	Q9H9B1
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**

Description
Glucagon-like peptide-1 (GLP-1) is an incretin hormone secreted from enteroendocrine L cells in response to ingested nutrients. The closely related peptides glucagon-like peptide (GLP-1) and glucagon have opposing effects on blood glucose. GLP-1 induces glucose-dependent insulin secretion in the pancreas, while glucagon stimulates gluconeogenesis and glycogenolysis in the liver. Glucagon is processed from a large precursor, proglucagon, in a tissue-specific manner in pancreatic alpha-cells. The identification of a hybrid peptide acting as both a GLP-1 agonist and a glucagon antagonist would provide a novel approach for the treatment of type 2 diabetes.

Immunogen
Purified recombinant fragment of GLP expressed in E. Coli.

Formulation
Purified antibody in PBS containing 0.03% sodium azide.

GLP Antibody - Additional Information

Gene ID 79813

Other Names
Histone-lysine N-methyltransferase EHMT1, 2.1.1.-, 2.1.1.43, Euchromatic histone-lysine N-methyltransferase 1, Eu-HMTase1, G9a-like protein 1, GLP, GLP1, Histone H3-K9 methyltransferase 5, H3-K9-HMTase 5, Lysine N-methyltransferase 1D, EHMT1, EUHMTASE1, GLP, KIAA1876, KMT1D

Dilution
WB~~1/500 - 1/2000
E~~N/A

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GLP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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GLP Antibody - Protein Information

Name EHMT1 {ECO:0000303|PubMed:17974005, ECO:0000312|HGNC:HGNC:24650}

Function
Histone methyltransferase that specifically mono-, di- and trimethylates 'Lys-9' of histone H3 (H3K9me1, H3K9me2 and H3K9me3, respectively) in euchromatin (PubMed:12004135). H3K9me represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones (PubMed:12004135). Also weakly methylates 'Lys-27' of histone H3 (H3K27me) (PubMed:12004135). Also required for DNA methylation, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently (By similarity). Probably targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1 (PubMed:12004135). During G0 phase, it probably contributes to silencing of MYC- and E2F-responsive genes, suggesting a role in G0/G1 transition in cell cycle (PubMed:12004135). Involved in the differentiation of myoblastic precursors into brown adipose cells: following recruitment to chromatin by PRDM16, mediates formation of H3K9me2 and H3K9me3, inhibiting the expression of white adipose- selective genes (By similarity). Also involved in the differentiation of beige adipocytes from white adipose cells following recruitment by PRDM16 (By similarity). EHMT1 also promotes protein stabilization of PRDM16, by preventing PRDM16 ubiquitination and degradation (By similarity). In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys- 373' of p53/TP53 (PubMed:20118233). Represses the expression of mitochondrial function-related genes, perhaps by occupying their promoter regions, working in concert with probable chromatin reader BAZ2B (By similarity).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q5DW34}. Chromosome {ECO:0000250|UniProtKB:Q5DW34}. Note=Associates with euchromatic regions. {ECO:0000250|UniProtKB:Q5DW34}

Tissue Location
Widely expressed..

GLP Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GLP Antibody - Images

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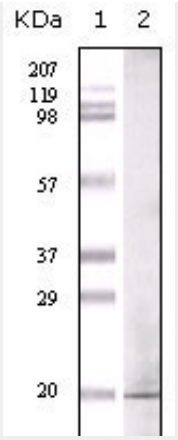

Figure 1: Western blot analysis using GLP mouse mAb against GLP recombinant protein.

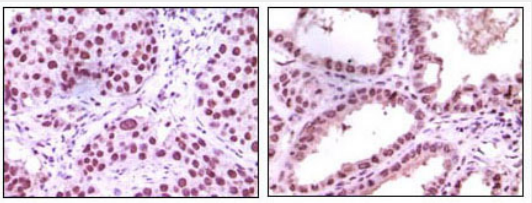

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung carcinoma (left) and kidney carcinoma (right), showing nuclear localization using LSD1 mouse mAb with DAB staining.

GLP Antibody - References

1. Clark Q. Pan, Joanne M. Buxton, Stephanie L. Yung, et al. J Biol Chem. 2006 Feb 27. 2.Michael F. Crutchlow, Jee-Young Nina Ham, et al. Int J Biochem Cell Biol. 2006;38(5-6):845-859. 3.Andrew Young Adv Pharmacol. 2005;52:151-71.