

#3305 Store at -20°C

GCN5L2 (C26A10) Rabbit mAb


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC	H M R Mk	Endogenous	94	Rabbit IgG	#Q92830	2648

Product Usage Information	Application Western Blotting Immunoprecipitation Immunofluorescence (Immunocytochemistry)	Dilution 1:1000 1:200 1:200 - 1:800
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	GCN5L2 (C26A10) Rabbit mAb detects endogenous levels of total GCN5L2 protein. The antibody does not cross-react with the related PCAF protein.	
Species predicted to react based on 100% sequence homology:	Bovine, Horse	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of human GCN5L2.	
Background	General Control of Amino Acid Synthesis Yeast Homolog Like 2 (GCN5L2) is a transcription adaptor protein and a histone acetyltransferase (HAT) that functions as the catalytic subunit of the STAGA and TFTC transcription coactivator complexes (1). GCN5L2 is 73% homologous to the p300/CBP-associated factor PCAF, another HAT protein found in similar complexes (2). Free GCN5L2 acetylates histone H3 on Lys14; however, when part of coactivator complexes, GCN5L2 acetylates histone H3 at Lys9, 14, 18, and 23, and to a smaller extent histones H4 and H2B (3). Histone acetylation contributes to gene activation by modulating chromatin structure and recruiting additional coactivator proteins that contain acetyl-lysine binding bromodomains (4). GCN5L2 also acetylates non-histone proteins such as transcription activators (TAT, c-Myb) (5,6), transcription co-activators (PGC1-α) (7), and nuclear receptors (Steroidogenic Factor 1) (8). Acetylation of these proteins regulates their nuclear localization, protein stability, DNA binding, and co-activator association (5-8). GCN5L2 is recruited to gene promoters during transactivation through interactions with multiple transcription activator proteins such as Myc, E2F, p53, and BRCA1 (9-12). The STAGA and TFTC complexes also interact with SAP130 and DDB1, two structurally related proteins involved in RNA splicing and DNA repair, suggesting roles for GCN5L2 in processes other than transcription activation (13).	
Background References	1. Candau, R. et al. (1996) <i>Mol Cell Biol</i> 16, 593-602. 2. Yang, X.J. et al. (1996) <i>Nature</i> 382, 319-24. 3. Grant, P.A. et al. (1999) <i>J Biol Chem</i> 274, 5895-900. 4. Yang, X.J. (2004) <i>Bioessays</i> 26, 1076-87. 5. Kiernan, R.E. et al. (1999) <i>EMBO J</i> 18, 6106-18. 6. Tomita, A. et al. (2000) <i>Oncogene</i> 19, 444-51. 7. Lerin, C. et al. (2006) <i>Cell Metab</i> 3, 429-38. 8. Jacob, A.L. et al. (2001) <i>J Biol Chem</i> 276, 37659-64. 9. Liu, X. et al. (2003) <i>J Biol Chem</i> 278, 20405-12. 10. Lang, S.E. et al. (2001) <i>J Biol Chem</i> 276, 32627-34. 11. Candau, R. et al. (1997) <i>Oncogene</i> 15, 807-16. 12. Oishi, H. et al. (2006) <i>J Biol Chem</i> 281, 20-6. 13. Brand, M. et al. (2001) <i>EMBO J</i> 20, 3187-96.	

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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