Revision 1

Store at -20C

#19388

GATAD2A Antibody

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355) orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	70, 73	Rabbit	#Q86YP4	54815

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

GATAD2A Antibody recognizes endogenous levels of total GATAD2A protein. This antibody does not cross-react with GATAD2B protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro56 of human GATAD2A protein. Antibodies are purified by peptide affinity chromatography.

Background

GATAD2A and GATAD2B, also known as p66 alpha and p66 beta, are related members of the nucleosome remodeling and deacetylase (NuRD) complex (1). GATAD2A interacts with MBD2 to recruit the deacetylase core of the NuRD complex to repress target genes, a process that is enhanced by the sumoylation of GATAD2A at Lys30 and Lys487 (2-5). In addition to being sumoylated, GATAD2A has also been shown to be phosphorylated by AMPK in the memory formation process (6). Depletion of GATAD2A in order to reduce NuRD-dependent repression of key pluripotency genes is being explored in the context of induced pluripotent stem cell (iPSC) generation (7,8).

Background References

1. Brackertz, M. et al. (2002) *J Biol Chem* 277, 40958-66.
2. Brackertz, M. et al. (2006) *Nucleic Acids Res* 34, 397-406.
3. Gnanapragasam, M.N. et al. (2011) *Proc Natl Acad Sci U S A* 108, 7487-92.
4. Desai, M.A. et al. (2015) *Nucleic Acids Res* 43, 3100-13.
5. Gong, Z. et al. (2006) *Mol Cell Biol* 26, 4519-28.
6. Ding, X. et al. (2017) *Nat Neurosci* 20, 690-9.
7. Mor, N. et al. (2018) *Cell Stem Cell* 23, 412-425.e10.
8. Zviran, A. et al. (2019) *Cell Stem Cell* 24, 328-341.e9.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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Limited Uses

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