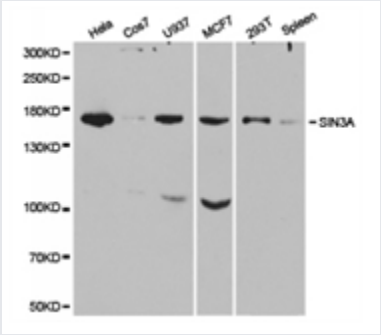
SIN3A Antibody – Rabbit

PRODUCT OVERVIEW

Product Name	SIN3A, Antibody
Full Product Name	SIN3A Antibody
Product Gene Name	anti-SIN3A antibody
Product Synonym Names	DKFZp434K2235; FLJ90319; KIAA0700
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Purity/Purification	Affinity purification
Preparation and Storage	Store at-20 degree C or-80 degree C. Avoid freeze/thaw cycles.
Molecular Weight	145kDa
OMIM	607776
3D Structure	ModBase 3D Structure for Q96ST3
Immunogen	Recombinant protein of human SIN3A
Storage Buffer	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Product Categories/Family for anti-SIN3A antibody	Autophagy antibody; Cancer; Cardiovascular; Cell Biology; Epigenetics & Nuclear Signaling; Developmental Biologys; Immunology; Drug Discovery Products; Metabolism; Neuroscience; Signal Transduction; Stem Cells
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-SIN3A antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-SIN3A antibody	WB: 1:500-1:2000 IHC: 1:50-1:200
Related Product Information for anti-SIN3A antibody	SIN3 was originally identified as a negative regulator of transcription in budding yeast (1, 2). Since then, three isoforms of the SIN3 proteins have been identified in mammalian cells, as products of two different genes, SIN3A and SIN3B (3, 4). Both SIN3A and SIN3B are nuclear proteins that function as scaffolding subunits for the multi-subunit SIN3 transcriptional repressor complex, containing SIN3A or SIN3B, HDAC1, HDAC2, SDS3, RBBP4/RBAP48, RBBP7/RBAP46, SAP30, and SAP18 (3, 4). SIN3 proteins contain four paired amphipathic alpha-helix (PAH) motifs that function in the recruitment of the SIN3 complex to target genes by binding a multitude of DNA-binding transcriptional repressor proteins, including Mad1, p53, E2F4, HCF-1, AML1, Elk-1, NRSF, CTCF, ERalpha, and MeCP2 (3, 4). In addition, SIN3 proteins contain an HDAC interaction domain (HID), which mediates binding of HDAC1 and HDAC2 via the SDS3 bridging protein, and a highly conserved region (HCR) at the carboxy terminus, which contributes to repressor protein binding (3, 4). RBBP4 and RBBP7 proteins also bind to SDS3 and contribute to nucleosome binding of the complex. The SIN3 complex functions to repress transcription, in part, by deacetylating histones at target gene promoters (3, 4). In addition, recent studies have shown that SIN3 is recruited to the coding regions of repressed and active genes, where it deacetylates histones and suppresses spurious transcription by RNA polymerase II (3, 5). In addition to histone deacetylase activity, the SIN3 complex associates with histone methyltransferase (ESET), histone demethylase (JARID1A/RBP2), ATP-dependent chromatin remodeling (SWI/SNF), methylcytosine dioxygenase (TET1), and O-GlcNAc transferase (OGT) activities, all of which appear to contribute to the regulation of target genes (5-9). The SIN3 complex is critical for proper regulation of embryonic development, cell growth and proliferation, apoptosis, DNA replication, DNA repair, and DNA methylation (imprinting and X-chromosome inactivation) (3, 4).

Product References and Citations for anti-SIN3A antibody	1. Sternberg, P.W. et al. (1987) Cell 48, 567-77. 2. Nasmyth, K. et al. (1987) Cell 48, 579-87. 3. Grzenda, A. et al. Biochim Biophys Acta 1789, 443-50. 4. McDonel, P. et al. (2009) Int J Biochem Cell Biol 41, 108-16. 5. van Oevelen, C. et al. (2008) Mol Cell 32, 359-70. 6. Yang, L. et al. (2003) Biochem J 369, 651-7. 7. Sif, S. et al. (2001) Genes Dev 15, 603-18. 8. Williams, K. et al. (2011) Nature 473, 343-8. 9. Yang, X. et al. (2002) Cell 110, 69-80.
Other Notes	Small volumes of anti-SIN3A antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SIN3A purchase	MBS8504519 is an antibody targeting SIN3A. Also known as SIN3A Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Testing Data of anti-SIN3A antibody
Western blot analysis of extracts of various celllines, using SIN3A antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SIN3A. It may not necessarily be applicable to this product.

NCBI GI #	223941782
NCBI GeneID	25942
NCBI Accession #	NP_001138829.1
UniProt Primary Accession #	Q96ST3
UniProt Secondary Accession #	Q8N8N4; Q8NC83; Q8WV18; Q96L98; Q9UFQ1; B2RNS5
UniProt Related Accession #	Q96ST3
GenBank Nucleotide #	NM_001145357.1
NCBI Official Full Name	paired amphipathic helix protein Sin3a
NCBI Official Synonym Full Names	SIN3 transcription regulator family member A
NCBI Official Symbol	SIN3A
NCBI Official Synonym Symbols	WITKOS
UniProt Protein Name	Paired amphipathic helix protein Sin3a
UniProt Synonym Protein Names	Histone deacetylase complex subunit Sin3a; Transcriptional corepressor Sin3a
Protein Family	Paired amphipathic helix protein
UniProt Gene Name	SIN3A
NCBI Protein Information	paired amphipathic helix protein Sin3a
NCBI Summary for SIN3A	The protein encoded by this gene is a transcriptional regulatory protein. It contains paired amphipathic helix (PAH) domains, which are important for protein-protein interactions and may mediate repression by the Mad-Max complex. [provided by RefSeq, Jul 2008]

UniProt Comments for SIN3A	Acts as a transcriptional repressor. Corepressor for REST. Interacts with MXI1 to repress MYC responsive genes and antagonize MYC oncogenic activities. Also interacts with MXD1-MAX heterodimers to repress transcription by tethering SIN3A to DNA. Acts cooperatively with OGT to repress transcription in parallel with histone deacetylation. Involved in he control of the circadian rhythms. Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex through histone deacetylation. Cooperates with FOXK1 to regulate cell cycle progression probably by repressing cell cycle inhibitor genes expression ().
Research Articles on SIN3A	**1.** High mRNA expression of SIN3A/low mRNA expression of SIN3B correlates with longer relapse free survival specifically in patients with triple negative breast cancer.
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