SIN3A Conjugated Antibody

Catalog No: #C32322

Package Size: #C32322-AF350 100ul #C32322-AF405 100ul #C32322-AF488 100ul #C32322-AF555 100ul #C32322-AF594 100ul #C32322-AF647 100ul #C32322-AF680 100ul #C32322-AF750 100ul #C32322-Biotin 100ul

Orders: order@signalwayantibody.com
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Description

Product Name	SIN3A Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total SIN3A protein.
Immunogen Description	Recombinant protein of human SIN3A.
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	DKFZp434K2235;FLJ90319;KIAA0700
Accession No.	Swiss-Prot#:Q96ST3NCBI Gene ID:25942
Uniprot	Q96ST3
GeneID	25942;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Calculated MW	145
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

Application Details

Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250

AF405 conjugated: most applications: 1: 50 - 1: 250

AF488 conjugated: most applications: 1: 50 - 1: 250

AF555 conjugated: most applications: 1: 50 - 1: 250

AF594 conjugated: most applications: 1: 50 - 1: 250

AF647 conjugated: most applications: 1: 50 - 1: 250

AF680 conjugated: most applications: 1: 50 - 1: 250

AF750 conjugated: most applications: 1: 50 - 1: 250

Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1: 50 - 1: 1,000

Product Description

Antibodies were purified by affinity purification using immunogen.

Background

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, ERα, 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).

Note: This product is for in vitro research use only