ARG59330
anti-SIRT7 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SIRT7
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	SIRT7
Species	Human
Immunogen	Recombinant protein corresponding to R8-G350 of Human SIRT7.
Conjugation	Un-conjugated
Alternate Names	SIR2-like protein 7; SIR2L7; Regulatory protein SIR2 homolog 7; EC 3.5.1.-; NAD-dependent protein deacetylase sirtuin-7

Application Instructions

Application table

Application	Dilution
IHC-P	0.5 - 1 µg/ml
WB	0.1 - 0.5 µg/ml

Application Note: IHC-P: Antigen Retrieval: By heat mediation.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

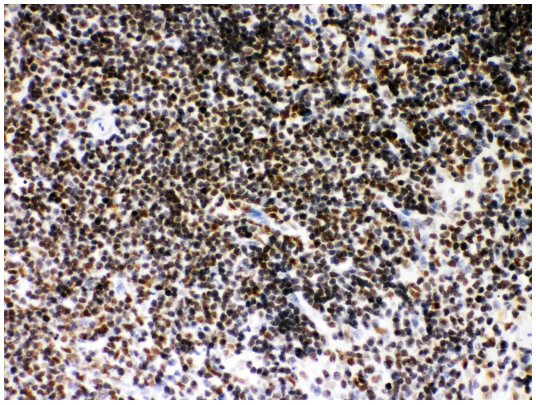
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na2HPO4, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

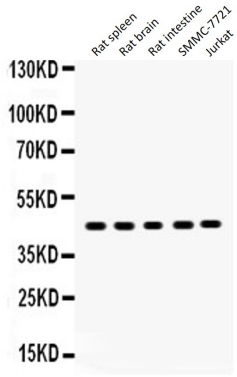
Gene Symbol	SIRT7
Gene Full Name	sirtuin 7
Background	This gene encodes a member of the sirtuin family of proteins, homologs to the yeast Sir2 protein. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. The functions of human sirtuins have not yet been determined; however, yeast sirtuin proteins are known to regulate epigenetic gene silencing and suppress recombination of rDNA. Studies suggest that the human sirtuins may function as intracellular regulatory proteins with mono-ADP-ribosyltransferase activity. The protein encoded by this gene is included in class IV of the sirtuin family. [provided by RefSeq, Jul 2008]
Function	NAD-dependent protein deacetylase that specifically mediates deacetylation of histone H3 at 'Lys-18' (H3K18Ac). In contrast to other histone deacetylases, displays selectivity for a single histone mark, H3K18Ac, directly linked to control of gene expression. H3K18Ac is mainly present around the transcription start site of genes and has been linked to activation of nuclear hormone receptors. SIRT7 thereby acts as a transcription repressor. Moreover, H3K18 hypoacetylation has been reported as a marker of malignancy in various cancers and seems to maintain the transformed phenotype of cancer cells. These data suggest that SIRT7 may play a key role in oncogenic transformation by suppresses expression of tumor suppressor genes by locus-specific deacetylation of H3K18Ac at promoter regions. Also required to restore the transcription of ribosomal RNA (rRNA) at the exit from mitosis: promotes the association of RNA polymerase I with the rDNA promoter region and coding region. Stimulates transcription activity of the RNA polymerase I complex. May also deacetylate p53/TP53 and promotes cell survival, however such data need additional confirmation. [UniProt]
Calculated Mw	45 kDa
PTM	Phosphorylated during mitosis. [UniProt]
Cellular Localization	Cytoplasm. Nucleus, nucleolus. Note=Located close to the nuclear membrane when in the cytoplasm. Associated with chromatin. Associated with rDNA promoter and transcribed region. Associated with nucleolar organizer regions during mitosis. [UniProt]

Images



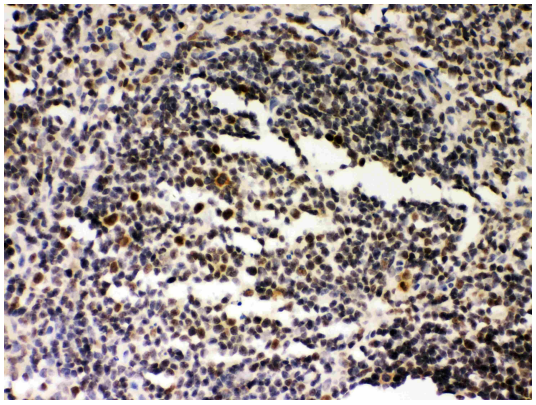
ARG59330 anti-SIRT7 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse spleen stained with ARG59330 anti-SIRT7 antibody.



ARG59330 anti-SIRT7 antibody WB image

Western blot: 50 ug of Rat spleen, 50 ug of Rat brain, 50 ug of Rat intestine, 40 ug of SMMC-7721 and 40 ug of Jurkat whole cell lysates stained with ARG59330 anti-SIRT7 antibody at 0.5 ug/ml dilution.



ARG59330 anti-SIRT7 antibody IHC-P image

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