

ARG53993
anti-DBC1 antibodyPackage: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes KIAA1967
Tested Reactivity	Hu, Ms, Rat, Mk
Tested Application	ICC/IF, IP, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	DBC1
Species	Human
Immunogen	Purified recombinant human DBC1 protein fragments expressed in E.coli
Conjugation	Un-conjugated
Alternate Names	KIAA1967; p30 DBC; p30DBC; DBC.1; DBC1; Cell division cycle and apoptosis regulator protein 2; DBIRD complex subunit KIAA1967; DBC-1; Cell cycle and apoptosis regulator protein 2; NET35; Deleted in breast cancer gene 1 protein

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:200
	IP	Assay-dependent
	WB	1:500
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	130 kDa	

Properties

Form	Liquid
Purification	Affinity purified
Buffer	0.1M Tris-Glycine (pH 7.4), 150 mM NaCl, 0.2% Sodium azide and 50% Glycerol
Preservative	0.2% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 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. 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.

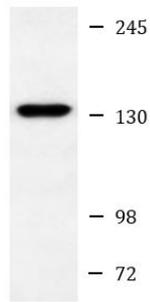
Bioinformation

Database links	GeneID: 219158 Mouse GeneID: 57805 Human Swiss-port # Q8N163 Human Swiss-port # Q8VDP4 Mouse
Gene Symbol	CCAR2
Gene Full Name	cell cycle and apoptosis regulator 2
Background	Core component of the DBIRD complex, a multiprotein complex that acts at the interface between core mRNP particles and RNA polymerase II (RNAPII) and integrates transcript elongation with the regulation of alternative splicing; the DBIRD complex affects local transcript elongation rates and alternative splicing of a large set of exons embedded in (A + T)-rich DNA regions. Inhibits SIRT1 deacetylase activity leading to increasing levels of p53/TP53 acetylation and p53-mediated apoptosis. Inhibits SUV39H1 methyltransferase activity. As part of a histone H3-specific methyltransferase complex may mediate ligand-dependent transcriptional activation by nuclear hormone receptors.
Function	Core component of the DBIRD complex, a multiprotein complex that acts at the interface between core mRNP particles and RNA polymerase II (RNAPII) and integrates transcript elongation with the regulation of alternative splicing; the DBIRD complex affects local transcript elongation rates and alternative splicing of a large set of exons embedded in (A + T)-rich DNA regions. Inhibits SIRT1 deacetylase activity leading to increasing levels of p53/TP53 acetylation and p53-mediated apoptosis. Inhibits SUV39H1 methyltransferase activity. As part of a histone H3-specific methyltransferase complex may mediate ligand-dependent transcriptional activation by nuclear hormone receptors. Plays a critical role in maintaining genomic stability and cellular integrity following UV-induced genotoxic stress. Regulates the circadian expression of the core clock components NR1D1 and ARNTL/BMAL1. Enhances the transcriptional repressor activity of NR1D1 through stabilization of NR1D1 protein levels by preventing its ubiquitination and subsequent degradation. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody
Calculated Mw	103 kDa
PTM	ATM/ATR-mediated phosphorylation at Thr-454 upon DNA damage promotes binding to SIRT1. Phosphorylation at Thr-454 promotes its sumoylation by switching the binding partner of CCAR2 from SENP1 to PIAS3. Acetylation at Lys-112 and Lys-215 by KAT8 prevents inhibitory binding to SIRT1 and increases its deacetylase activity. Genotoxic stress induces its sumoylation and sumoylation promotes the SIRT1-CCAR2 interaction which in turn inhibits SIRT1-mediated deacetylation of p53/TP53. Sumoylation leads to transcriptional activation of p53/TP53 by sequestering SIRT1 from p53/TP53. Desumoylated by SENP1.
Cellular Localization	Nucleus



ARG53993 anti-DBC1 antibody ICC/IF image

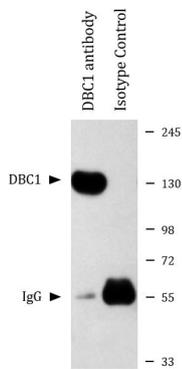
Immunofluorescence: HeLa cells stained with ARG53993 anti-DBC1 antibody at 1:200 dilution.



Jurkat

ARG53993 anti-DBC1 antibody WB image

Western blot: Jurkat cell lysate stained with ARG53993 anti-DBC1 antibody at 1:500 dilution.



ARG53993 anti-DBC1 antibody IP image

Immunoprecipitation: HeLa cell lysates were immunoprecipitated and stained with ARG53993 anti-DBC1 antibody.
