

ARG41997 anti-CDT1 / Dup antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CDT1 / Dup
Tested Reactivity	Hu
Tested Application	ICC/IF, IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CDT1 / Dup
Species	Human
Immunogen	Synthetic peptide of Human CDT1 / Dup.
Conjugation	Un-conjugated
Alternate Names	DUP; DNA replication factor Cdt1; RIS2; Double parked homolog

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	IP	1:50
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HEK293	
Observed Size	~ 65 kDa	

Properties

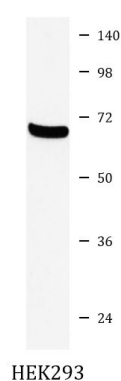
Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store 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

Gene Symbol	CDT1
Gene Full Name	chromatin licensing and DNA replication factor 1
Background	The protein encoded by this gene is involved in the formation of the pre-replication complex that is necessary for DNA replication. The encoded protein can bind geminin, which prevents replication and may function to prevent this protein from initiating replication at inappropriate origins. Phosphorylation of this protein by cyclin A-dependent kinases results in degradation of the protein. [provided by RefSeq, Mar 2011]
Function	Cooperates with CDC6 to promote the loading of the mini-chromosome maintenance complex onto chromatin to form the pre-replication complex necessary to initiate DNA replication. Binds DNA in a sequence-, strand-, and conformation-independent manner. Potential oncogene. [UniProt]
Calculated Mw	60 kDa
PTM	Two independent E3 ubiquitin ligase complexes, SCF(SKP2) and the DCX(DTL) complex, mediated CDT1 degradation in S phase. Ubiquitinated by the DCX(DTL) complex, in response to DNA damage, leading to its degradation. Ubiquitination by the DCX(DTL) complex is necessary to ensure proper cell cycle regulation and is PCNA-dependent: interacts with PCNA via its PIP-box, while the presence of the containing the 'K+4' motif in the PIP box, recruit the DCX(DTL) complex, leading to its degradation. Phosphorylation at Thr-29 by CDK2 targets CDT1 for ubiquitination by SCF(SKP2) E3 ubiquitin ligase and subsequent degradation (PubMed:14993212). The interaction with GMNN protects it against ubiquitination. Deubiquitinated by USP37 (PubMed:27296872). Phosphorylation by cyclin A-dependent kinases at Thr-29 targets CDT1 for ubiquitynation by SCF(SKP2) E3 ubiquitin ligase and subsequent degradation (PubMed:14993212). Phosphorylated at Thr-29 by MAPK8/JNK1, which blocks replication licensing in response to stress (PubMed:21856198). Binding to GMNN is not affected by phosphorylation. [UniProt]
Cellular Localization	Nucleus. Chromosome, centromere, kinetochore. Note=Transiently localizes to kinetochores during prometaphase and metaphase. [UniProt]

Images



ARG41997 anti-CDT1 / Dup antibody WB image

Western blot: HEK293 cell lysate stained with ARG41997 anti-CDT1 / Dup antibody.