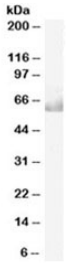
CDT1 Antibody / Chromatin Licensing and DNA Replication Factor 1 (R33167)

Catalog No.	Formulation	Size
R33167-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	81620
Applications	Western blot: 1-3ug/ml ELISA (peptide) LOD: 1:64000
Limitations	This CDT1 antibody is available for research use only.



CDT1 Antibody Human Ovary WB. Western blot analysis of human ovary lysate using CDT1 antibody demonstrates detection of a band at approximately 60-70 kDa, consistent with the expected molecular weight of Chromatin Licensing and DNA Replication Factor 1 (CDT1). CDT1 is a DNA replication licensing factor that regulates pre-replication complex assembly and ensures accurate genome duplication during cell cycle progression. Expression of CDT1 is associated with proliferating cell populations and reflects its essential role in cellular proliferation, chromosome maintenance, and genome stability. Western blot was performed using 0.05 ug/ml primary antibody. Predicted molecular weight: ~60 kDa, commonly observed at 60-70 kDa.

Description

CDT1 Antibody is designed for the detection and study of CDT1 (Chromatin Licensing and DNA Replication Factor 1), a critical regulator of DNA replication that ensures accurate duplication of the genome during cell division. CDT1 functions during the G1 phase of the cell cycle by licensing replication origins prior to DNA synthesis, allowing chromosomal DNA to be replicated once and only once during each cell cycle. Because precise control of genome duplication is essential for

cellular viability and genomic integrity, CDT1 serves as a key component of the molecular machinery governing cell proliferation and chromosome maintenance.

CDT1 plays a central role in assembly of the pre-replication complex through recruitment and loading of the MCM helicase complex onto replication origins. This licensing process establishes replication competence before entry into S phase and is tightly regulated to prevent inappropriate re-replication of DNA. Multiple cellular pathways control CDT1 abundance and activity throughout the cell cycle, ensuring that replication origins fire correctly and that genomic stability is maintained.

Expression of CDT1 is closely associated with actively proliferating cells and is frequently examined in studies of cell cycle progression, developmental biology, stem cell function, tissue growth, and regenerative processes. Because DNA replication licensing is required for cellular expansion and normal tissue maintenance, CDT1 has become an important marker for investigating mechanisms that regulate proliferation and cell cycle control in both normal and diseased tissues.

Disruption of CDT1 regulation can contribute to replication stress, chromosome instability, DNA damage accumulation, and abnormal cell cycle progression. Consequently, CDT1 remains an important target in research involving cancer biology, genome maintenance pathways, DNA damage responses, and cellular checkpoint mechanisms. Studies of CDT1 continue to provide valuable insight into how cells preserve genomic integrity while supporting growth, development, and tissue homeostasis.

CDT1 Antibody is widely used to investigate DNA replication licensing pathways, cell cycle regulation, and molecular mechanisms controlling genome duplication. Researchers utilize CDT1 Antibody reagents to evaluate protein expression patterns and study biologic processes involved in cellular proliferation, chromosome maintenance, developmental regulation, and genome stability.

Learn more about CDT1 and related DNA replication control pathways on our CDT1 Antibody / DNA Replication Licensing Factor Antibody page.

Application Notes

Optimal dilution of the CDT1 antibody should be determined by the researcher.

Immunogen

Amino acids ARLAHQTRAEEGL were used as the immunogen for this CDT1 antibody.

Storage

Aliquot and store the CDT1 antibody at -20oC.

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