



# Rabbit Anti-CDC7 Kinase monoclonal antibody, clone TZ32-12 (CABT-L627)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Target</b>	CDC7 Kinase
<b>Immunogen</b>	Recombinant protein
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Clone</b>	TZ32-12
<b>Purification</b>	Protein A purified.
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB, FC
<b>Molecular Weight</b>	64 kDa
<b>Cellular Localization</b>	Nucleus.
<b>Positive Control</b>	Jurkat, A431, Hela.
<b>Format</b>	Liquid
<b>Size</b>	100 µl
<b>Buffer</b>	1×TBS (pH7.4), 1% BSA, 40% Glycerol.
<b>Preservative</b>	0.05% Sodium Azide

**Storage**

Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

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## BACKGROUND

**Introduction**

The Dbf4/Cdc7 protein kinase is essential for the activation of replication origins during S phase. Cdc7/Dbf4 efficiently phosphorylates several proteins that are required for the initiation of DNA replication, including five of the six minichromosome maintenance (Mcm) proteins and the p180 subunit of DNA polymerase  $\alpha$ -primase. This protein complex consists of the catalytic subunit Cdc7 associating with the regulatory and activating subunit Dbf4. The kinase activity of the complex is regulated throughout the cell cycle, mainly by fluctuating levels of Dbf4. Cdc7 is consistently expressed throughout the cell cycle, while the expression of Dbf4 is absent during G1 phase and accumulates during S and G2 phases. The anaphase-promoting complex rapidly degrades Dbf4 at the time of chromosome segregation, and the stability of Dbf4 remains low during pre-Start G1 phase. The coordinated degradation of Dbf4 and the time of chromosome separation is important to ensuring that prereplicative complexes, which assemble after chromosome segregation, do not immediately re-fire.

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**Keywords**

Cdc 7;CDC7;CDC7 cell division cycle 7;CDC7 cell division cycle 7 like 1;CDC7 L1;Cdc7 like 1;CDC7 related kinase;CDC7-related kinase;CDC7\_HUMAN;CDC7L 1;CDC7L1;Cell division cycle 7 homolog;Cell division cycle 7 kinase;Cell division cycle 7 like protein 1;Cell division cycle 7 related protein kinase;Cell division cycle 7-related protein kinase;HsCDC 7;HsCdc7;Hsk 1;Hsk1;HuCDC 7;huCdc7;MGC117361;MGC126237;MGC126238 antibody

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## GENE INFORMATION

**Entrez Gene ID**

[6444](#)

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