

# **Product datasheet**

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# ARG41145 anti-CDC25C antibody

Package: 100 μl Store at: -20°C

### Summary

Product Description Rabbit Polyclonal antibody recognizes CDC25C

Tested Reactivity Hu

Tested Application FACS, ICC/IF, IHC-P, IP, WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name CDC25C
Species Human

Immunogen Synthetic peptide derived from Human CDC25C.

Conjugation Un-conjugated

Alternate Names PPP1R60; M-phase inducer phosphatase 3; CDC25; EC 3.1.3.48; Dual specificity phosphatase Cdc25C

# **Application Instructions**

Application table	Application	Dilution
	FACS	1:50
	ICC/IF	1:50 - 1:200
	IHC-P	1:10 - 1:500
	IP	1:30
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	K562	
Observed Size	53 kDa	

## **Properties**

Liquid	
Affinity purified.	
PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.	
0.02% Sodium azide	
50% Glycerol	
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 CDC25C

Gene Full Name cell division cycle 25C

Background This gene is highly conserved during evolution and it plays a key role in the regulation of cell division.

The encoded protein is a tyrosine phosphatase and belongs to the Cdc25 phosphatase family. It directs dephosphorylation of cyclin B-bound CDC2 and triggers entry into mitosis. It is also thought to suppress p53-induced growth arrest. Multiple alternatively spliced transcript variants of this gene have been described, however, the full-length nature of many of them is not known. [provided by RefSeq, Jul

2008]

Function Functions as a dosage-dependent inducer in mitotic control. Tyrosine protein phosphatase required for

progression of the cell cycle. When phosphorylated, highly effective in activating G2 cells into prophase.

Directly dephosphorylates CDK1 and activates its kinase activity. [UniProt]

Calculated Mw 53 kDa

PTM Phosphorylated by CHEK1 and MAPK14 at Ser-216. This phosphorylation creates a binding site for

 $14\text{-}3\text{-}3 \ \text{protein and inhibits the phosphatase. Phosphorylated by PLK4. Phosphorylated by PLK1, leading}$ 

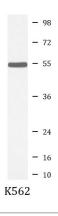
to activate the phosphatase activity. Phosphorylation by PLK3 at Ser-191 promotes nuclear  $\,$ 

translocation. Ser-198 is a minor phosphorylation site. Was initially reported to be phosphorylated by PLK3 at Ser-216 (PubMed:10557092). However, such phosphorylation by PLK3 was not confirmed by other groups. Phosphorylation at Thr-48, Thr-67, Ser-122, Thr-130, Ser-168 and Ser-214 occurs at G2 and G2-M transition and is probably catalyzed by CDK1. Ser-168 phosphorylation levels are lower than

those at the other 5 CDK1 sites. Phosphorylation by CDK1 leads to increased activity. [UniProt]

Cellular Localization Nucleus. [UniProt]

#### **Images**



#### ARG41145 anti-CDC25C antibody WB image

Western blot: K562 cell lysate stained with ARG41145 anti-CDC25C antibody.