

[KD Validated] Anti-CDC45 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

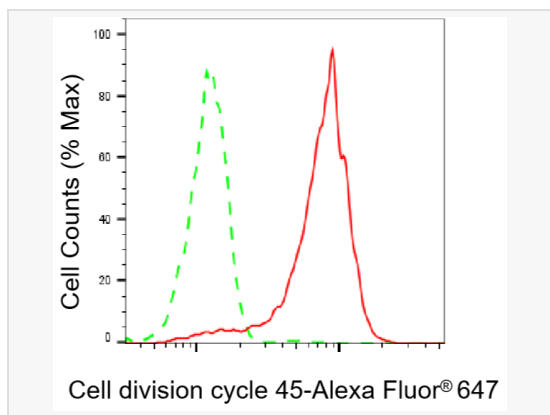
Catalog # R021481

Product Information

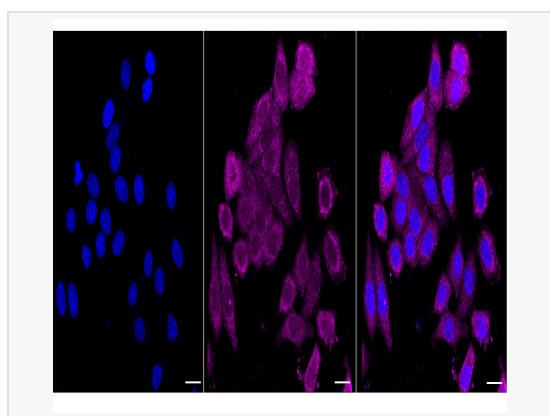
Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	89N13H39
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human CDC45
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-CDC45 Rabbit mAb [89N13H39] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

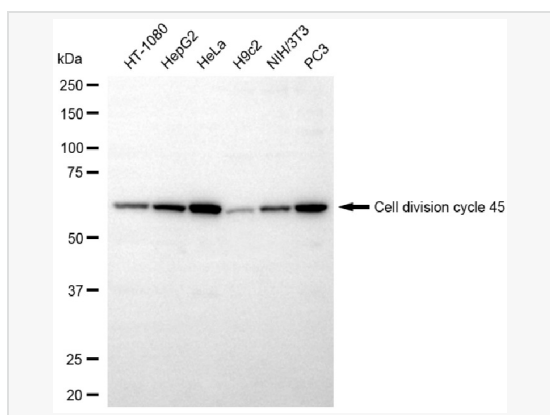
Synonyms	CDC45; Cell Division Cycle 45; CDC45L2; CDC45L; Cell Division Control Protein 45 Homolog; Human CDC45; PORC-PI-1; CDC45 (Cell Division Cycle 45, <i>S. Cerevisiae</i> , Homolog)-Like; CDC45 Cell Division Cycle 45-Like (<i>S. Cerevisiae</i>); Cell Division Cycle 45 Homolog (<i>S. Cerevisiae</i>); CDC45 Cell Division Cycle 45 Homolog; CDC45 Cell Division Cycle 45-Like; Cell Division Cycle 45 Homolog; Cell Division Cycle 45-Like 2; CDC45-Related Protein; MGORS7.
Calculated MW	Calculated MW: 66 kDa, Observed MW: 65 kDa
Uniprot ID	O75419
Gene ID	8318
Background	The protein encoded by this gene was identified by its strong similarity with <i>Saccharomyces cerevisiae</i> Cdc45, an essential protein required to the initiation of DNA replication. Cdc45 is a member of the highly conserved multiprotein complex including Cdc6/Cdc18, the minichromosome maintenance proteins (MCMs) and DNA polymerase, which is important for early steps of DNA replication in eukaryotes. This protein has been shown to interact with MCM7 and DNA polymerase alpha. Studies of the similar gene in <i>Xenopus</i> suggested that this protein play a pivotal role in the loading of DNA polymerase alpha onto chromatin. Alternate splicing results in multiple transcript variants.



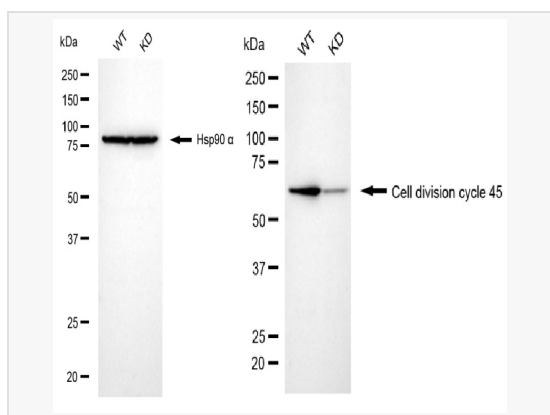
Flow cytometric analysis of Cell division cycle 45 expression in HepG2 cells using Cell division cycle 45 antibody (R021481, 1:2,000). Green, isotype control; red, Cell division cycle 45.



Immunocytochemical staining of HepG2 cells with Cell division cycle 45 antibody (R021481, 1:1,000). Nuclei were stained blue with DAPI; Cell division cycle 45 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Western blotting analysis using cell division cycle 45 antibody (R021481). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with cell division cycle 45 antibody (R021481, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using cell division cycle 45 antibody (R021481). Cell division cycle 45 expression in wild type (WT) and cell division cycle 45 (CDC45) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with cell division cycle 45 antibody (R021481, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.