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Anti-CDC6 Antibody (Monoclonal, DCS-180)

Catalog # ABO10414

Product Information

Application	WB
Primary Accession	O89033
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized
Description	Mouse IgG monoclonal antibody for CDC6, cell division cycle 6 homolog (S. cerevisiae) (CDC6) detection. Tested with WB in Human. No cross reactivity with other proteins.
Reconstitution	Add 1ml of PBS buffer will yield a concentration of 100ug/ml.

Additional Information

Gene ID	23834
Other Names	Cell division control protein 6 homolog, CDC6-related protein, p62(cdc6), Cdc6
Calculated MW	62614
Application Details	Western blot, 1-2 □g/ml, Human
Subcellular Localization	Nucleus . Cytoplasm . The protein is nuclear in G1 and cytoplasmic in S-phase cells. .
Source	Eukaryota
Protein Name	Cell division control protein 6 homolog
Contents	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN3 as preservative.
Clone Names	DCS-180
Immunogen	Recombinant human Cdc6.
Purification	Ascites
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities	Belongs to the CDC6/cdc18 family.

Protein Information

Name	Cdc6
Function	Involved in the initiation of DNA replication. Also participates in checkpoint controls that ensure DNA replication is completed before mitosis is initiated.
Cellular Location	Nucleus {ECO:0000250|UniProtKB:Q99741}. Cytoplasm {ECO:0000250|UniProtKB:Q99741}. Note=The protein is nuclear in G1 and cytoplasmic in S-phase cells. {ECO:0000250|UniProtKB:Q99741}

Background

In yeasts, Cdc6(Saccharomyces cerevisiae) and Cdc18(Schizosaccharomyces pombe) associate with the origin recognition complex(ORC) proteins to render cells competent for DNA replication. Cdc6 is overexpressed in human cancers, where it has a critical regulatory role in addition to DNA replication. Yan et al.(1998) showed that Cdc6 is expressed selectively in proliferating but not quiescent mammalian cells, both in culture and within tissues in intact animals. During the transition from a growth-arrested to a proliferative state, transcription of mammalian Cdc6 is regulated by E2F proteins, as revealed by a functional analysis of the human Cdc6 promoter and by the ability of exogenously expressed E2F proteins to stimulate the endogenous Cdc6 gene. They conclude that expression of human Cdc6 is regulated in response to mitogenic signals though transcriptional control mechanisms involving E2F proteins, and that Cdc6 is required for initiation of DNA replication in mammalian cells.

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