

Anti-Cdc48 (*S. cerevisiae*) antibody, rabbit polyclonal

62-303 100 µl

Background: Involved in spindle disassembly, degradation of ubiquitinated proteins and protein export from the endoplasmic reticulum to the cytoplasm. Acts as a chaperone that collects ubiquitinated substrates. Has a role in the endoplasmic reticulum-associated degradation (ERAD) pathway. Required for the proteasome-dependent processing/activation of MGA2 and SPT23 transcription factors leading to the subsequent expression of OLE1. Has an additional role in the turnover of OLE1 where it targets ubiquitinated OLE1 and other proteins to the ERAD. Cdc48 consists of 836 amino acids with molecular mass of 92 kDa

Applications

1) Western blotting (1/500~1/5,000 dilution)
Not tested for other applications

Specification

Immunogen: Synthetic peptide HPDQYTKFGLSPSK (509~521) corresponding to 509~521 of Cdc48 protein.

Product: Whole antiserum added with 0.02% sodium azide.

Reactivity: *S. cerevisiae* Cdc48 protein, not tested in other species

Storage: Shipped at 4°C. Upon arrival, spin-down and store at -20°C.

Data Link: UniProtKB P25694 CDC48_YEST

Reference: This antibody was described in Ref.1 and used in Ref.1 and 2.

1. Noguchi M. et al. ATPase activity of p97/valosin-containing protein is regulated by oxidative modification of the evolutionally conserved cysteine 522 residue in Walker A motif. *J Biol Chem.* 2005; 280(50):41332-41. 2.

Takata T. et al. Rescue of growth defects of yeast cdc48 mutants by pathogenic IBMPFD-VCPs. *J Struct Biol.* 2012 ;179(2):93-103.

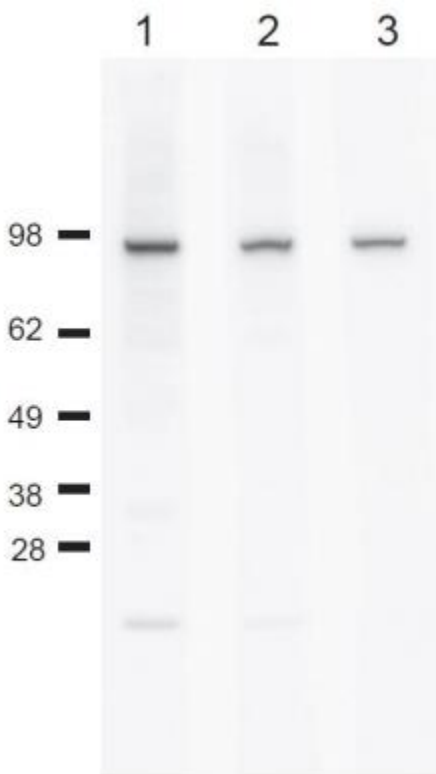


Fig. Identification of endogenous Cdc48 protein in crude extract of *S. cerevisiae*

Total protein (40 μ g) of *S. cerevisiae* strain W303 was analyzed by western blot.

1. Anti-Cdc48 antibody at 1/500.
2. Anti-Cdc48 antibody at 1/2,000
3. Anti-Cdc48 antibody at 1/5,000

As second antibody, HRP-conjugated anti-rabbit IgG was used at 1/10,000 dilution. Positions of molecular size markers were shown in kDa on the left. Cdc48 calculated from amino acid sequence is 92 kDa