CDC48 / YDL126C Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF3879a

**Specification**

<table>
<thead>
<tr>
<th><strong>Application</strong></th>
<th>WB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Accession</strong></td>
<td>P55072</td>
</tr>
<tr>
<td><strong>Other Accession</strong></td>
<td>NP_010157.1, 7415, 269523 (mouse), 116643 (rat)</td>
</tr>
<tr>
<td><strong>Reactivity</strong></td>
<td>Human, Mouse, Rat, Cow, Dog</td>
</tr>
<tr>
<td><strong>Host</strong></td>
<td>Goat</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Polyclonal</td>
</tr>
<tr>
<td><strong>Concentration</strong></td>
<td>0.5 mg/ml</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
</tr>
<tr>
<td><strong>Calculated MW</strong></td>
<td>89322</td>
</tr>
</tbody>
</table>

**Gene ID** 7415

**Other Names**
Transitional endoplasmic reticulum ATPase, TER ATPase, 3.6.4.6, 15S Mg(2+)-ATPase p97 subunit, Valosin-containing protein, VCP, VCP

**Format**
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
CDC48 / YDL126C Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**Additional Information**
AF3879a (0.01 µg/ml) staining of HeLa lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

**Background**
This antibody may cross react in many other species.

**References**
The Cdc48 ATPase modulates the interaction between two proteolytic factors Ufd2 and Rad23.

**Protein Information**
Name VCP

**Function**
Necessary for the fragmentation of Golgi stacks during mitosis and for their reassembly after mitosis. Involved in the formation of the transitional endoplasmic reticulum ATPase.
reticulum (tER). The transfer of membranes from the endoplasmic reticulum to the Golgi apparatus occurs via 50-70 nm transition vesicles which derive from part-rough, part-smooth transitional elements of the endoplasmic reticulum (tER). Vesicle budding from the tER is an ATP-dependent process. The ternary complex containing UFD1L, VCP and NPLOC4 binds ubiquitinated proteins and is necessary for the export of misfolded proteins from the ER to the cytoplasm, where they are degraded by the proteasome. The NPLOC4-UFD1L-VCP complex regulates spindle disassembly at the end of mitosis and is necessary for the formation of a closed nuclear envelope. Regulates E3 ubiquitin-protein ligase activity of RNF19A. Component of the VCP/p97-AMFR/gp78 complex that participates in the final step of the sterol-mediated ubiquitination and endoplasmic reticulum-associated degradation (ERAD) of HMGCR. Also involved in DNA damage response: recruited to double-strand breaks (DSBs) sites in a RNF8- and RNF168-dependent manner and promotes the recruitment of TP53BP1 at DNA damage sites. Recruited to stalled replication forks by SPRTN: may act by mediating extraction of DNA polymerase eta (POLH) to prevent excessive translesion DNA synthesis and limit the incidence of mutations induced by DNA damage. Required for cytoplasmic retrotranslocation of stressed/damaged mitochondrial outer-membrane proteins and their subsequent proteasomal degradation. Essential for the maturation of ubiquitin-containing autophagosomes and the clearance of ubiquitinated protein by autophagy (PubMed: <a href="http://www.uniprot.org/citations/20104022" target="_blank">20104022</a>).

**Cellular Location**
Cytoplasm, cytosol. Endoplasmic reticulum. Nucleus. Note=Present in the neuronal hyaline inclusion bodies specifically found in motor neurons from amyotrophic lateral sclerosis patients. Present in the Lewy bodies specifically found in neurons from Parkinson disease patients. Recruited to the cytoplasmic surface of the endoplasmic reticulum via interaction with AMFR/gp78. Following DNA double-strand breaks, recruited to the sites of damage. Recruited to stalled replication forks via interaction with SPRTN

**CDC48 / YDL126C Antibody (internal region) - Protocols**
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
Proteomics of yeast telomerase identified Cdc48-Npl4-Ufd1 and Ufd4 as regulators of Est1 and telomere length.