Product datasheet

Anti-Cathepsin D antibody [CTD-19] ab6313

Overview

Product name
Anti-Cathepsin D antibody [CTD-19]

Description
Mouse monoclonal [CTD-19] to Cathepsin D

Host species
Mouse

Tested applications
Suitable for: WB, ELISA, IHC-P, ICC/IF, IP

Species reactivity
Reacts with: Mouse, Human

Immunogen
Full length native protein (purified) (Human liver).

Positive control
Human breast carcinoma tissue or cell line extract.

Properties

Form
Liquid

Storage instructions
Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Storage buffer
Preservative: 0.097% Sodium azide

Purity
Ascites

Clonality
Monoclonal

Clone number
CTD-19

Isotype
IgG2a

Applications

Our Abpromise guarantee covers the use of ab6313 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐️</td>
<td>1/1000. Detects a band of approximately 52 kDa.</td>
</tr>
<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/200.</td>
<td></td>
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</table>
### Function
Acid protease active in intracellular protein breakdown. Involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease.

### Tissue specificity
Expressed in the aorta extracellular space (at protein level).

### Involvement in disease
Ceroid lipofuscinosis, neuronal, 10

### Sequence similarities
Belongs to the peptidase A1 family.
Contains 1 peptidase A1 domain.

### Post-translational modifications
N- and O-glycosylated.

### Cellular localization
Lysosome. Melanosome. Secreted, extracellular space. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. In aortic samples, detected as an extracellular protein loosely bound to the matrix (PubMed:20551380).

### Target

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 24833013</td>
</tr>
</tbody>
</table>

### Images

**Western blot - Anti-Cathepsin D antibody [CTD-19] (ab6313)**

- Anti-Cathepsin D antibody [CTD-19] (ab6313) at 1/1000 dilution + MDA MB 231 whole cell lysate at 20 µg

**Secondary**
- HRP-conjugated monoclonal sheep anti-mouse IgG at 1/5000 dilution
- Developed using the ECL technique.
- Performed under reducing conditions.

**Observed band size**: 28,48,50 kDa
**why is the actual band size different from the predicted?**

**Exposure time**: 2 minutes

- Blocked with 5% milk for 1 hour at 22°C.
- Incubated with the primary antibody for 1 hour at 22°C in 5% TBS-T.
ab6313 staining Cathepsin D in DU145 human prostate cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 pH 7.4 and blocked with 5% BSA at room temperature for 20 minutes. Samples were incubated with primary antibody (1/200 in PBS) for 1 hour. A CF488A-conjugated goat anti-mouse IgG (H+L) polyclonal was used as the secondary antibody (1/500).

ab6313 staining Cathepsin D in HepaRG cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with formaldehyde, permeabilized with Triton X-100 in PBS and blocked with 1% milk at room temperature for 20 minutes. Samples were incubated with primary antibody (1µg/ml in 1% milk) for 30 minutes. An undiluted Alexa Fluor® 594-conjugated goat anti-mouse IgG polyclonal was used as the secondary antibody.
Anti-Cathepsin D antibody [CTD-19] (ab6313) at 1/4000 dilution + MCF7 Human breast carcinoma cells

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