Product datasheet

Anti-HtrA2 / Omi antibody [EPR22] ab75982

Recombinant RabMab

Overview

Product name  Anti-HtrA2 / Omi antibody [EPR22]
Description  Rabbit monoclonal [EPR22] to HtrA2 / Omi
Host species  Rabbit
Tested applications  Suitable for: WB, IP, IHC-P, ICC, Flow Cyt
Species reactivity  Reacts with: Mouse, Rat, Human
Immunogen  Synthetic peptide corresponding to Human HtrA2/ Omi.
Positive control  Jurkat cell lysate, 293T cell lysate, HeLa cell lysate and Human colon tissue.
General notes  Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents.
This product is a recombinant rabbit monoclonal antibody.

Properties

Form  Liquid
Storage instructions  Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer  pH: 7.20
Preservative: 0.05% Sodium azide
Constituents: 0.1% BSA, 40% Glycerol, 9.85% Tris glycine, 50% Tissue culture supernatant
Purity  Tissue culture supernatant
Clonality  Monoclonal
Clone number  EPR22
Isotype  IgG

Applications

Our Abpromise guarantee covers the use of ab75982 in the following tested applications.
**Function**
Serine protease that shows proteolytic activity against a non-specific substrate beta-casein. Promotes or induces cell death either by direct binding to and inhibition of BIRC proteins (also called inhibitor of apoptosis proteins, IAPs), leading to an increase in caspase activity, or by a BIRC inhibition-independent, caspase-independent and serine protease activity-dependent mechanism. Cleaves THAP5 and promotes its degradation during apoptosis. Isoform 2 seems to be proteolytically inactive.

**Tissue specificity**
Isoform 1 is ubiquitous. Isoform 2 is expressed predominantly in the kidney, colon and thyroid.

**Involvement in disease**
Defects in HTRA2 are the cause of Parkinson disease type 13 (PARK13) [MIM:610297]. A complex neurodegenerative disorder characterized by bradykinesia, resting tremor, muscular rigidity and postural instability, as well as by a clinically significant response to treatment with levodopa. The pathology involves the loss of dopaminergic neurons in the substantia nigra and the presence of Lewy bodies (intraneuronal accumulations of aggregated proteins), in surviving neurons in various areas of the brain.

**Sequence similarities**
Belongs to the peptidase S1B family. Contains 1 PDZ (DHR) domain.

**Domain**
The mature N-terminus is involved in the interaction with XIAP. The PDZ domain mediates interaction with MX1.

**Post-translational modifications**
Autoproteolytically activated.

**Cellular localization**
Mitochondrion intermembrane space. Mitochondrion membrane. Predominantly present in the intermembrane space. Released into the cytosol following apoptotic stimuli, such as UV treatment, and stimulation of mitochondria with caspase-8 truncated BID/BID.

### Application Notes

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★★☆☆</td>
<td>1/500 - 1/5000. Detects a band of approximately 37 kDa (predicted molecular weight: 49 kDa).</td>
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<tr>
<td>IP</td>
<td></td>
<td>1/10.</td>
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<tr>
<td>IHC-P</td>
<td>1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
<td></td>
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<tr>
<td>ICC</td>
<td>1/250 - 1/500.</td>
<td></td>
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<tr>
<td>Flow Cyt</td>
<td>1/70. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
<td></td>
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</tbody>
</table>
Western blot - Anti-HtrA2 / Omi antibody [EPR22] (ab75982)

**All lanes**: Anti-HtrA2 / Omi antibody [EPR22] (ab75982) at 1/5000 dilution

**Lane 1**: Jurkat cell lysate
**Lane 2**: 293T cell lysate
**Lane 3**: HeLa cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: HRP labelled goat anti-rabbit at 1/2000 dilution

**Predicted band size**: 49 kDa
**Observed band size**: 38 kDa

*why is the actual band size different from the predicted?*

**Additional bands at**: 43 kDa. We are unsure as to the identity of these extra bands.

Secondary antibody - goat *anti-rabbit HRP* (ab6721)

Immunohistochemical analysis of paraffin-embedded human colon using ab75982 at 1/100-1/250 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Overlay histogram showing HeLa cells stained with ab75982 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab75982, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was goat anti-rabbit Alexa Fluor® 488 (IgG H+L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

Western blot - Anti-HtrA2 / Omi antibody [EPR22] (ab75982)

Anti-HtrA2 / Omi antibody [EPR22] (ab75982) at 1/1000 dilution + Isolated mitochondria from NB4 cell line at 30 µg

Secondary
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution

Developed using the ECL technique.

**Predicted band size:** 49 kDa

**Observed band size:** 37 kDa *why is the actual band size different from the predicted?*

**Exposure time:** 30 seconds

Blocking buffer : 5% milk
Diluting buffer : 1% milk
High background signal after longer exposure.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"
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