**Product datasheet**

**Anti-PINK1 antibody ab23707**

<table>
<thead>
<tr>
<th>Overview</th>
<th></th>
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<tbody>
<tr>
<td><strong>Product name</strong></td>
<td>Anti-PINK1 antibody</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to PINK1</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td><strong>Suitable for:</strong> WB, IHC-P, ICC/IF</td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
<td><strong>Reacts with:</strong> Mouse, Rat, Human</td>
</tr>
<tr>
<td></td>
<td><strong>Predicted to work with:</strong> Cow, Cynomolgus monkey</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>Synthetic peptide: LVRALLQREA SKRPSARVAA N, corresponding to amino acids 484-504 of Human PINK1.</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>Human, mouse, rat liver.</td>
</tr>
<tr>
<td><strong>General notes</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Properties**

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>pH: 7.20</td>
</tr>
<tr>
<td></td>
<td>Preservative: 0.02% Sodium azide</td>
</tr>
<tr>
<td></td>
<td>Constituents: 50% Glycerol, PBS</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein A purified</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Polyclonal</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
</tr>
</tbody>
</table>

**Applications**

Our **Abpromise guarantee** covers the use of **ab23707** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function
Protects against mitochondrial dysfunction during cellular stress, potentially by phosphorylating mitochondrial proteins. Involved in the clearance of damaged mitochondria via selective autophagy (mitophagy). It is necessary for PARK2 recruitment to dysfunctional mitochondria to initiate their degradation.

Tissue specificity
Highly expressed in heart, skeletal muscle and testis, and at lower levels in brain, placenta, liver, kidney, pancreas, prostate, ovary and small intestine. Present in the embryonic testis from an early stage of development.

Involvement in disease
Defects in PINK1 are the cause of Parkinson disease type 6 (PARK6) [MIM:605909]. A neurodegenerative disorder characterized by parkinsonian signs such as rigidity, resting tremor and bradykinesia. A subset of patients manifest additional symptoms including hyperreflexia, autonomic instability, dementia and psychiatric disturbances. Symptoms show diurnal fluctuation and can improve after sleep.

Sequence similarities
Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Contains 1 protein kinase domain.

Post-translational modifications
Autophosphorylated.

Cellular localization
Mitochondrion outer membrane. Cytoplasm > cytosol.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/200 - 1/1000. Detects a band of approximately 66 kDa. Can be blocked with Human PINK1 peptide (ab30903). Detects a band of approximately 66 kDa. Can be blocked with PINK1 peptide (484-504) (ab30903).</td>
</tr>
<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 4 µg/ml.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 1 - 5 µg/ml.</td>
</tr>
</tbody>
</table>

Images
All lanes: Anti-PINK1 antibody (ab23707) at 1/1000 dilution

Lane 1: Human liver whole cell lysate
Lane 2: Human hepatocytes whole cell lysate

Lysates/proteins at 25 µg per lane.

Secondary
All lanes: Goat anti-rabbit HRP conjugate at 1/1000 dilution

Developed using the ECL technique.

**Observed band size:** 66 kDa

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

**Additional bands at:** 50 kDa (possible non-specific binding)

**Exposure time:** 20 seconds

Blocking: 5% milk for 1 hour at 23°C.

Anti-PINK1 antibody (ab23707) at 4 µg/ml + Murine liver 100,000 x g pellet at 30 µg

**Observed band size:** 66 kDa

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

**Additional bands at:** 33 kDa (possible cleavage fragment)
Western blot - Anti-PINK1 antibody (ab23707)

This image is courtesy of an anonymous Abreview

Anti-PINK1 antibody (ab23707) at 1/1000 dilution + Whole cell lysate prepared from Jurkat cells at 100000 cells

**Secondary**

Donkey anti-rabbit IgG conjugated to HRP at 1/2000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Observed band size:** 66 kDa why is the actual band size different from the predicted?

**Additional bands at:** 100 kDa, 35 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 10 seconds

Samples blocked with 5% milk for 1 hour at 25°C.

Immunocytochemistry/ Immunofluorescence - Anti-PINK1 antibody (ab23707)

ICC/IF image of ab23707 stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab23707, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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