**Product datasheet**

**Anti-p73 antibody [EP436Y] ab40658**

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**Overview**

**Product name**  
Anti-p73 antibody [EP436Y]

**Description**  
Rabbit monoclonal [EP436Y] to p73

**Host species**  
Rabbit

**Tested applications**

**Suitable for:** WB, ICC/IF, IHC-P, Flow Cyt  
**Unsuitable for:** IP

**Species reactivity**  
Reacts with: Mouse, Human

**Immunogen**  
Synthetic peptide within Human p73 aa 50-150. The exact sequence is proprietary.

**Positive control**  
WB: HeLa, Jurkat, HEK293 and NIH/3T3 cell lysates. IHC-P: Human urinary bladder carcinoma, human kidney, human liver carcinoma and mouse testis tissues. ICC/IF: HeLa cells.

**General notes**

This product is a recombinant monoclonal antibody, which offers several advantages including:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

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**Properties**

**Form**  
Liquid

**Storage instructions**  
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer
pH: 7.20
Preservative: 0.01% Sodium azide
Constituents: 40% Glycerol, 0.05% BSA, 59% PBS

Purity
Protein A purified

Clonality
Monoclonal

Clone number
EP436Y

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab40658 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>
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</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/500 - 1/2000. Detects a band of approximately 63 kDa (predicted molecular weight: 70 kDa).</td>
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<tr>
<td>ICC/IF</td>
<td>1/150 - 1/300.</td>
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<tr>
<td>IHC-P</td>
<td>1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols.</td>
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<tr>
<td>Flow Cyt</td>
<td>Use at an assay dependent concentration.</td>
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Application notes
Is unsuitable for IP.

Target

Function
Participates in the apoptotic response to DNA damage. Isoforms containing the transactivation domain are pro-apoptotic, isoforms lacking the domain are anti-apoptotic and block the function of p53 and transactivating p73 isoforms. May be a tumor suppressor protein.

Tissue specificity
Expressed in striatal neurons of patients with Huntington disease (at protein level). Brain, kidney, placenta, colon, heart, liver, spleen, skeletal muscle, prostate, thymus and pancreas. Highly expressed in fetal tissue.

Sequence similarities
Belongs to the p53 family. Contains 1 SAM (sterile alpha motif) domain.

Domain
Possesses an acidic transactivation domain, a central DNA binding domain and a C-terminal oligomerization domain that binds to the ABL tyrosine kinase SH3 domain. The WW-binding motif mediates interaction with WWOX.

Post-translational modifications
Isoform alpha (but not isoform beta) is sumoylated on Lys-627, which potentiates proteasomal degradation but does not affect transcriptional activity. Higher levels of phosphorylation seen in the brain from patients with Huntington disease. Ubiquitinated; leading to its degradation by the proteasome.

Cellular localization
Nucleus. Accumulates in the nucleus in response to DNA damage.

Images
Western blot - Anti-p73 antibody [EP436Y] (ab40658)

**All lanes**: Anti-p73 antibody [EP436Y] (ab40658) at 1/5000 dilution (purified)

**Lane 1**: HeLa whole cell lysate

**Lane 2**: HEK293 whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size**: 70 kDa

**Observed band size**: 60,75 kDa

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

Blocking and dilution buffer: 5% NFDM/TBST.

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling p73 with purified ab40658 at a dilution of 1/300. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. **ab7291**, a mouse anti-tubulin (1/1000) and **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/300) and secondary antibody, **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: **ab7291** (1/1000) and secondary antibody, **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling p73 with purified ab40658 at a dilution of 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

Flow Cytometry analysis of 293(human embryonic kidney) cells labeling p73 with purified ab40658 at 1/120 dilution(10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488)(1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.
Western blot - Anti-p73 antibody [EP436Y] (ab40658)

Anti-p73 antibody [EP436Y] (ab40658) at 1/1000 dilution (purified)  
+ NIH/3T3 whole cell lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 70 kDa

Observed band size: 60 kDa  
why is the actual band size different from the predicted?

Blocking and dilution buffer: 5% NFDM/TBST.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver carcinoma tissue labelling p73 with purified ab40658 at a dilution of 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse testis tissue labelling p73 with purified ab40658 at a dilution of 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human urinary bladder carcinoma tissue labelling p73 with unpurified ab40658 at a dilution of 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Western blot - Anti-p73 antibody [EP436Y] (ab40658)

All lanes: Anti-p73 antibody [EP436Y] (ab40658) at 1/2000 dilution (unpurified)

Lane 1: HeLa cell lysate
Lane 2: Jurkat cell lysate
Lane 3: NIH/3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 70 kDa
Observed band size: 63 kDa

why is the actual band size different from the predicted?

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