Product datasheet

Anti-XPA antibody ab85914

Overview

Product name: Anti-XPA antibody

Description: Rabbit polyclonal to XPA

Host species: Rabbit

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

Species reactivity: Reacts with: Human

Predicted to work with: Rhesus monkey, Gorilla, Elephant

Immunogen: Synthetic peptide, corresponding to a region between residues 1 and 50 of Human XPA (NP_000371.1)

Positive control: HeLa whole cell lysate (ab150035). IF/ICC: HepG2

Properties

Form: Liquid

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

Storage buffer: Preservative: 0.09% Sodium azide

Constituents: Tris buffered saline, 0.1% BSA

Purity: Immunogen affinity purified

Purification notes: ab85914 was affinity purified using an epitope specific to XPA immobilized on solid support.

Clonality: Polyclonal

Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab85914 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>ICC/IF</td>
<td></td>
<td>Use a concentration of 1 µg/ml.</td>
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Function
Involved in DNA excision repair. Initiates repair by binding to damaged sites with various affinities, depending on the photoproduct and the transcriptional state of the region. Required for UV-induced CHK1 phosphorylation and the recruitment of CEP164 to cyclobutane pyrimidine dimmers (CPD), sites of DNA damage after UV irradiation.

Tissue specificity
Expressed in various cell lines and in skin fibroblasts.

Involvement in disease
Defects in XPA are a cause of xeroderma pigmentosum complementation group A (XP-A) [MIM:278700]; also known as xeroderma pigmentosum type 1 (XP1). XP-A is a rare human autosomal recessive disease characterized by solar sensitivity, high predisposition for developing cancers on areas exposed to sunlight and, in some cases, neurological abnormalities. Group A patients show the most severe skin symptoms and progressive neurological disorders.

Sequence similarities
Belongs to the XPA family.

Post-translational modifications
Phosphorylated upon DNA damage, probably by ATM or ATR. Ubiquitinated by HERC2 leading to degradation by the proteasome.

Cellular localization
Nucleus.

Images

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★☆☆☆☆</td>
<td>1/2000 - 1/10000. Detects a band of approximately 39 kDa (predicted molecular weight: 31 kDa).</td>
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<td>IP</td>
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<td>Use at 2-5 µg/mg of lysate.</td>
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<tr>
<td>IHC-P</td>
<td>1/200 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
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All lanes: Anti-XPA antibody (ab85914) at 0.04 µg/ml

Lane 1: HeLa whole cell lysate at 50 µg
Lane 2: HeLa whole cell lysate at 15 µg
Lane 3: HeLa whole cell lysate at 5 µg

Predicted band size: 31 kDa
Observed band size: 39 kDa

why is the actual band size different from the predicted?

Additional bands at: 55 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds
Detection: Chemiluminescence with exposure time of 30 seconds

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue labelling XPA with ab85914 at 1/1000 (0.2µg/ml). Detection: DAB.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-XPA antibody (ab85914)

Immunocytochemistry/ Immunofluorescence - Anti-XPA antibody (ab85914)

ICC/IF image of ab85914 stained HepG2 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 (ab85914, 1µg/ml) overnight at +4°C. The secondary antibody (green) was ab96899, DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 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.

Immunocytochemistry/ Immunofluorescence - Anti-XPA antibody (ab85914)

Detection of XPA by Western Blot of Immunprecipitate. ab85914 at 0.1µg/ml staining XPA in HeLa whole cell lysate immunoprecipitated using ab85914 at 3µg/mg lysate (1 mg/IP; 20% of IP loaded/lane).

Detection: Chemiluminescence with exposure time of 30 seconds.

Immunoprecipitation - Anti-XPA antibody (ab85914)

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