## Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-DR5 antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit polyclonal to DR5</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Specificity</td>
<td>Does not cross react with DR4.</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: IHC-P, WB, ICC/IF</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide corresponding to Human DR5 (C terminal). DR5 antibody was raised against a peptide corresponding to 20 amino acids near the carboxy terminus of human DR5 precursor. The immunogen is located within the last 50 amino acids of DR5. Database link: <a href="https://www.uniprot.org/uniprot/O14763">O14763</a> (Peptide available as <a href="https://www.abcam.com/protein-ab8449">ab8449</a>)</td>
</tr>
<tr>
<td>Positive control</td>
<td>IHC-P: Mouse kidney tissue. WB: HeLa and K562 whole cell lysate. ICC/IF: HeLa cells.</td>
</tr>
<tr>
<td>General notes</td>
<td>For information on sample preparation for western blot, please refer <a href="https://www.abcam.com/protein-ab8449">here</a>.</td>
</tr>
</tbody>
</table>

## Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.</td>
</tr>
<tr>
<td>Storage buffer</td>
<td>Preservative: 0.02% Sodium azide</td>
</tr>
<tr>
<td>Purity</td>
<td>Affinity purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
</tr>
</tbody>
</table>

## Applications

Our Abpromise guarantee covers the use of **ab8416** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function
Receptor for the cytotoxic ligand TNFSF10/TRAIL. The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. Promotes the activation of NF-kappa-B. Essential for ER stress-induced apoptosis.

Tissue specificity
Widely expressed in adult and fetal tissues; very highly expressed in tumor cell lines such as HeLaS3, K-562, HL-60, SW480, A-549 and G-361; highly expressed in heart, peripheral blood lymphocytes, liver, pancreas, spleen, thymus, prostate, ovary, uterus, placenta, testis, esophagus, stomach and throughout the intestinal tract; not detectable in brain.

Involvement in disease
Squamous cell carcinoma of the head and neck

Sequence similarities
Contains 1 death domain.
Contains 3 TNFR-Cys repeats.

Cellular localization
Membrane.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 5 µg/ml.</td>
</tr>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 2 µg/ml. Detects a band of approximately 60 kDa (predicted molecular weight: 47.8 kDa).</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 5 µg/ml.</td>
</tr>
</tbody>
</table>

**Target**

**Function**
Receptor for the cytotoxic ligand TNFSF10/TRAIL. The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. Promotes the activation of NF-kappa-B. Essential for ER stress-induced apoptosis.

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**Involvement in disease**
Squamous cell carcinoma of the head and neck

**Sequence similarities**
Contains 1 death domain.
Contains 3 TNFR-Cys repeats.

**Cellular localization**
Membrane.

**Images**

**Western blot - Anti-DR5 antibody (ab8416)**

<table>
<thead>
<tr>
<th>KDa</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>130 - 95 - 72 - 55 - 36 - 28 -</td>
<td></td>
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</tbody>
</table>

**All lanes**: Anti-DR5 antibody (ab8416) at 0.5 µg/ml

- **Lane 1**: HEK293 cell lysate
- **Lane 2**: A431 cell lysate
- **Lane 3**: A549 cell lysate
- **Lane 4**: Caco-2 cell lysate
- **Lane 5**: Daudi cell lysate
- **Lane 6**: HeLa cell lysate
- **Lane 7**: HepG2 cell lysate
- **Lane 8**: K562 cell lysate
- **Lane 9**: MCF7 cell lysate
- **Lane 10**: Jurkat cell lysate
- **Lane 11**: SK-N-SH cell lysate
- **Lane 12**: THP-1 cell lysate

Lysates/proteins at 15 µg per lane.
Secondary

All lanes: Goat Anti-Rabbit IgG HRP conjugate at 1/10000 dilution

Predicted band size: 47.8 kDa

All lanes: Anti-DR5 antibody (ab8416) at 1 µg/ml

Lane 1: 3T3/NIH cell lysate
Lane 2: C2C12 cell lysate

Lysates/proteins at 15 µg per lane.

Secondary

All lanes: Goat anti-Rabbit IgG HRP conjugate at 1/10000 dilution

Predicted band size: 47.8 kDa

Immunohistochemical analysis of 4% paraformaldehyde fixed mouse kidney tissue using anti-DR5 antibody (ab8416) at 20 µg/mL followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution.
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-DR5 antibody (ab8416) at 5 μg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation (microwave for 20 minutes) with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary at room temperature for 1 hour. Counter stained with Hematoxylin.

Endogenous peroxidase blocking: 3% H$_2$O$_2$ at room temperature for 10 minutes.

Washing: PBS, 2 x 5 minutes.

Immunofluorescent analysis of 4% paraformaldehyde-fixed (room temperature for 10 minutes) HeLa cells labeling DR5 with ab8416 at 20 μg/mL, followed by goat anti-rabbit IgG antibody (Alexa Fluor 488) at 1/500 dilution (green).

Blocking condition: 5% BSA, room temperature for 1 hour.

Primary antibody incubation: 4°C overnight.

Secondary antibody incubation: room temperature for 1 hour.

Washing condition: PBS, 3 x 3 minutes.
ab8416 at 5µg/ml staining DR5 in Hela cells by ICC. Cells were fixed with formaldehyde and blocked with 10% serum for 1 hour at room temperature. Antigen retrieval was by heat mediation with a Citrate buffer (pH 6). Overnight primary antibody at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary.

Please note: All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

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