Western blot analysis of DR5 in HeLa (H) and K562 (K) cell lysates with DR5 antibody at 2 μg/mL.
Figure 6 Western Blot Validation in Rat Skeletal Muscle
Loading: 15 μg of lysate per lane. Antibodies: DR5 2019, (1 μg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

Figure 7 Immunofluorescence Validation of DR5 in Human HepG2 Cells
Immunofluorescent analysis of 4% paraformaldehyde-fixed human HepG2 cells labeling DR5 with 2019 at 5 μg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI (blue).

Figure 8 Immunofluorescence Validation of DR5 in Human Testis
Immunofluorescent analysis of 4% paraformaldehyde-fixed human testis tissue labeling DR5 with 2019 at 10 μg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI (blue).

Figure 9 Immunofluorescence Validation of DR5 in Mouse Pancreas
Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse pancreas tissue labeling DR5 with 2019 at 10 μg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI (blue).

Figure 10 Immunofluorescence Validation of DR5 in Rat Brain
Immunofluorescent analysis of 4% paraformaldehyde-fixed rat brain tissue labeling DR5 with 2019 at 5 μg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI (blue).

Figure 11 Immunohistochemistry Validation of DR5 in Mouse Kidney Tissue
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-DR5 antibody (2019) at 5μg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation 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. Counter stained with Hematoxylin.
Anti-cancer drug, Carfilzomib (CFZ), induced up-regulation of DR5 and the expression of DR5 was not detected in DR5-KO HCT 116 cell line with anti-DR5 antibodies (2019).

### Specifications

<table>
<thead>
<tr>
<th><strong>HOST SPECIES:</strong></th>
<th>Rabbit</th>
</tr>
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<tbody>
<tr>
<td><strong>SPECIES REACTIVITY:</strong></td>
<td>Human, Mouse, Rat</td>
</tr>
<tr>
<td><strong>IMMUNOGEN:</strong></td>
<td>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.</td>
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<tr>
<td><strong>TESTED APPLICATIONS:</strong></td>
<td>ELISA, IF, IHC-P, WB</td>
</tr>
<tr>
<td><strong>APPLICATIONS:</strong></td>
<td>WB: 0.5-2 μg/mL; IHC-P: 5 μg/mL; IF: 5-10 μg/mL. Antibody validated: Western Blot in human, mouse and rat samples; Immunohistochemistry in mouse samples; Immunocytochemistry in human samples and Immunofluorescence in human, mouse and rat samples. All other applications and species not yet tested.</td>
</tr>
<tr>
<td><strong>SPECIFICITY:</strong></td>
<td>Antibody has no cross reaction to DR4.</td>
</tr>
</tbody>
</table>
| **POSITIVE CONTROL:** | 1) Cat. No. 1201 - HeLa Cell Lysate  
2) Cat. No. 1204 - K562 Cell Lysate  
3) Cat. No. 17-001 - HeLa Cell Slide  
4) Cat. No. 1282 - 3T3/NIH Cell Lysate  
5) Cat. No. 1285 - C2C12 Cell Lysate |
| **PREDICTED MOLECULAR WEIGHT:** | Predicted: 48kD and 45kD  
Observed: 48kD and 45kD |

### Advanced Validation
**VALIDATION:**

**KO Validation** (Figure 12) shows DR5 expression detected by anti-DR5 antibodies (2019) was disrupted in DR5 KO HCT116 cells.

**KD validation** (Figure 13): Anti-DR5 antibody (2019) specificity was further verified by DR5 specific knockdown. DR5 signal in MB231 cells transfected with DR5 siRNAs was disrupted in comparison with that in cells transfected with control siRNAs.

**Regulated expression validation** (Figure 12, 15): DR5 expression detected by anti-DR5 antibodies (2019) was up-regulated by carfilzomib treatment and was down-regulated by treatment with two or more cytokines.

**ISOFORMS:**

Human DR5 has 3 isoforms, including isoform L (440aa, 48kD), isoform S (411aa, 45kD) and isoform 3 (118aa, 13kD). Mouse DR5 has 1 isoform (381aa, 42kD), and Rat DR5 also has 1 isoform (336aa, 37kD). 2019 can detect two human isoforms and can also detect mouse and rat isoforms.

**Properties**

**PURIFICATION:** DR5 Antibody is affinity chromatography purified via peptide column.

**CLONALITY:** Polyclonal

**ISOTYPE:** IgG

**CONJUGATE:** Unconjugated

**PHYSICAL STATE:** Liquid

**BUFFER:** DR5 Antibody is supplied in PBS containing 0.02% sodium azide.

**CONCENTRATION:** 1 mg/ml

**STORAGE CONDITIONS:** DR5 antibody can be stored at 4˚C for three months and -20˚C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Additional Info**

**OFFICIAL SYMBOL:** TNFRSF10B

**ALTERNATE NAMES:** DR5 Antibody: DR5, CD262, KILLER, TRICK2, TRICKB, ZTNFR9, TRAILR2, TRICK2A, TRICK2B, TRAIL-R2, KILLER/DR5, DR5, UNQ160/PRO186, Tumor necrosis factor receptor superfamily member 10B, Death receptor 5, TRAIL receptor 2

**ACCESSION NO.:** AF012535

**PROTEIN GI NO.:** 2338419

**GENE ID:** 8795

**USER NOTE:** Optimal dilutions for each application to be determined by the researcher.

**Background and References**
**BACKGROUND:**

DR5 Antibody: Apoptosis is induced by certain cytokines including TNF and Fas ligand in the TNF family through their death domain containing receptors. TRAIL/Apo2L is a new member of the TNF family. DR4 was recently identified as the receptor for TRAIL. A novel death domain containing receptor for TRAIL was more recently identified and designated DR5, Apo2, TRAIL-R2, TRICK2, or KILLER by several groups independently. Like DR4, DR5 transcript is widely expressed in normal tissues and in many types of tumor cells. DR5 binds to TRAIL and mediates TRAIL induced cell death. Overexpression of DR5 induces apoptosis and activates NF-κB.

**REFERENCES:**


**CITATIONS:**

1) Han et al. The novel proteasome inhibitor carfilzomib activates and enhances extrinsic apoptosis involving stabilization of death receptor 5. Oncotarget. 2015;6(19):17532-42. PMID: 26009898


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<th>Summary</th>
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