### Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-GITR antibody [CAL52]</th>
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</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [CAL52] to GITR</td>
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<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
</tbody>
</table>
| Tested applications   | Suitable for: ICC/IF, Flow Cyt, IP, IHC-P  
Unsuitable for: WB |
| Species reactivity    | Reacts with: Human          |
| Immunogen             | Synthetic peptide. This information is considered to be commercially sensitive. |
| General notes         | This product was previously labelled as TNFRSF18 |

### Properties

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<tr>
<th>Form</th>
<th>Liquid</th>
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| Storage buffer        | pH: 7.50  
Preservative: 0.05% Sodium azide  
Constituent: PBS |
| Purity                | Protein A purified |
| Purification notes    | Purity >99%. |
| Clonality             | Monoclonal |
| Clone number          | CAL52 |
| Isotype               | IgG |

### Applications
**Application notes**

Is unsuitable for WB.

**Target**

**Function**
Receptor for TNFSF18. Seems to be involved in interactions between activated T-lymphocytes and endothelial cells and in the regulation of T-cell receptor-mediated cell death. Mediated NF-kappa-B activation via the TRAF2/NIK pathway.

**Tissue specificity**
Expressed in lymph node, peripheral blood leukocytes and weakly in spleen.

**Sequence similarities**
Contains 3 TNFR-Cys repeats.

**Cellular localization**
Secreted and Cell membrane.

**Images**

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling GITR with ab237713 at 1/4000 dilution, followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on the human tonsil is observed. Counter stained with Hematoxylin. The section was incubated with ab237713 for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND®RX instrument.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GITR antibody [CAL52] (ab237713)

Formalin-fixed, paraffin-embedded human tonsil tissue stained for TNFSF18 using ab237713 at 0.25 μg/ml in immunohistochemical analysis.

Immunoprecipitation - Anti-GITR antibody [CAL52] (ab237713)

GITR was immunoprecipitated from 0.35 mg Hut-78 (Human Sezary syndrome cutaneous T lymphocyte) whole cell lysate using ab237713 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab237713 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used as the secondary antibody at 1/5000 dilution.

Lane 1: Hut-78 whole cell lysate 10 μg (input)
Lane 2: ab237713 IP in Hut-78 whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab237713 in Hut-78 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 15 seconds.

This blot was developed using a higher sensitivity ECL substrate.

Dimerized GITR was also observed at 52kDa

Immunoprecipitation - Anti-GITR antibody [CAL52] (ab237713)

GITR was immunoprecipitated from 0.35 mg HEK-293T (Human embryonic kidney epithelial cell) transfected with GFP-tagged GITR overexpression vector whole cell lysate using ab237713 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab237713 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used as the secondary antibody at 1/5000 dilution.

Lane 1: Hut-78 whole cell lysate 10 μg (input)
Lane 2: ab237713 IP in Hut-78 whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab237713 in 293T transfected with GFP-tagged GITR overexpression vector whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 3 minutes. 
This blot was developed using a higher sensitivity ECL substrate.

Dimerized GITR was also observed at 52kDa

Flow cytometric analysis of 2% paraformaldehyde-fixed, 0.1% tween-20 permeabilized Human peripheral blood mononuclear cell (PBMC) treated with 10μg/ml PHA for 48h, labeling GITR with ab237713 at 1/500 dilution. The secondary antibody was a Goat anti rabbit IgG (Alexa Fluor® 488, ab150097) at 1/500 dilution. Cells were surface stained with anti-CD25 conjugated to BV421. Then fixed with 2% PFA followed by intracellular staining rabbit IgG (Left) or ab237713 (Right). The isotype control used was a Rabbit monoclonal IgG (ab172730, Left).

4% Paraformaldehyde-fixed 0.1% TritonX-100 permeabilized HEK-293T (human embryonic kidney epithelial cell) cells labeling GITR with ab237713 at 1/50 dilution followed by a AlexaFluor®594 Goat anti-Rabbit secondary (ab150080) at a 1/500 dilution (Green). The nuclear counterstain was DAPI (Blue). Confocal image showing Positive staining in HEK-293T cells transfected with a GFP-tagged GITR expression construct.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is an AlexaFluor®594 Goat anti-Rabbit secondary (ab150080) at a 1/500 dilution

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