Human Interleukin-21
Monoclonal antibodies
FOR NEUTRALIZATION
**Antibody:** MT216G/21.3m

**Product code:** 3540-0N-500

**Quantity:** 500 μg

**Immunogen:** Recombinant human IL-21

**Isotype:** Mouse IgG1

**Specificity:** Native and recombinant human IL-21. Cross-reacts with native IL-21 from rhesus and cynomolgus macaques. Cross-reactivity has been tested in ELISA or ELISpot. Please contact Mabtech for information on reactivity with other monkey species.

**Concentration:** 1 mg/ml

**Buffer:** Supplied in sterile filtered (0.2 μm) PBS. Contains no preservatives. The endotoxin content in the product is below 10 EU/mg.

**Purification:** Purified from *in vitro* cultures by protein G affinity chromatography.

**Storage:** Store product at 4-8°C or frozen at -20°C or below. Avoid repeated freezing/thawing.

**Applications:** Neutralization of human IL-21 bioactivity. It is recommended to establish the optimal antibody concentration for the assay system used.
Neutralization

**Neutralization assay:** The neutralizing capacity and ND$_{50}$ was determined using ELISA and ELISpot. A) HEK cells were transfected to express the IL-21 activation pathway with alkaline phosphatase as a reporter. Cells were stimulated in the presence of recombinant human IL-21 (10 ng/ml) with or without serial dilutions of mAbs MT216G/21.3m. After overnight incubation, enzyme activity was measured in ELISA. B) Human peripheral blood mononuclear cells (PBMC) were incubated with recombinant IL-21 (10 ng/ml) with or without serial dilutions of mAbs MT216G/21.3m. After 4 days the IgG-secreting B cells were quantified by ELISpot.

**Neutralization dose 50 (ND$_{50}$):** MT216G/21.3m neutralized the effect of IL-21 at a ND$_{50}$ value of approximately 0.05 μg/ml when HEK cells were activated with 10 ng/ml of IL-21 (A). The corresponding ND$_{50}$ value for human PBMC activated with 10 ng/ml IL-21 was approximately 0.2 μg/ml.

ND$_{50}$ is defined as the concentration of antibody that results in 50% inhibition of the biological response under the experimental conditions specified.

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**A. ELISA**

![ELISA chart]

<table>
<thead>
<tr>
<th>IL-21 (10 ng/ml)</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT216G/21.3m (μg/ml)</td>
<td>10</td>
<td>1</td>
<td>0.1</td>
<td>0.01</td>
<td>0</td>
</tr>
</tbody>
</table>

**B. ELISpot**

![ELISpot chart]

<table>
<thead>
<tr>
<th>IL-21 (10 ng/ml)</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT216G/21.3m (μg/ml)</td>
<td>100</td>
<td>10</td>
<td>1</td>
<td>0.1</td>
<td>0</td>
</tr>
</tbody>
</table>

**The products are for research use only.**

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