SARS-CoV-2 neutralisation test in ELISA format

- Surrogate virus neutralisation test (sVNT) for the determination of neutralising antibodies that inhibit the binding of SARS-CoV-2 S1/RBD to ACE2 receptors, thus preventing the virus from entering the host cell
- Supports the evaluation of the individual immune response after SARS-CoV-2 infection or vaccination with S1/RBD-based vaccines
- High specificity (99.7%) and sensitivity (95.9%)
- Very high agreement of results compared with a plaque reduction neutralisation test (PRNT_{50})
- Established ELISA method – suitable for routine laboratory diagnostics, no BSL-3 laboratory required
- Automatable even for high-throughput analysis, results available in 2 hours
- Multispecies test – application with animal samples possible for research use

Order number: EI 2606-9601-4
Modelled upon nature: Neutralising antibodies in the sample compete with the host-cell receptor (ACE2) for the binding to S1/RBD in the first incubation step – no preadsorption required.

The more neutralising antibodies inhibit the binding of the biotinylated ACE2 to S1/RBD, the weaker is the colour reaction of the sample.

In contrast to classic antibody testing, only immunoglobulins with an inhibitory effect on the ACE2 S1/RBD binding are detected, but no other antibodies.

### Method comparison

<table>
<thead>
<tr>
<th>74 samples from patients with past confirmed SARS-CoV-2 infection</th>
<th>EUROIMMUN SARS-CoV-2 NeutraLISA</th>
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</thead>
<tbody>
<tr>
<td><strong>SARS-CoV-2 PRNT$_{50}$</strong></td>
<td><strong>positive</strong></td>
</tr>
<tr>
<td>positive</td>
<td>71</td>
</tr>
<tr>
<td>negative</td>
<td>1</td>
</tr>
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98.6% agreement