K-Blue® Advanced Performance

Introduction
NEOGEN® understands the importance of supplying substrates that provide superior performance while addressing evolving regulatory expectations. As a result, we have developed an innovative TMB substrate, K-Blue® Advanced. Our formula offers high activity and long-term stability. K-Blue Advanced is an ideal formula to meet any immunoassay manufacturer’s needs.

K-Blue Advanced Offers Superior Activity and Excellent Signal Strength
K-Blue Advanced is our most active substrate and is a good option for assays that require high activity. K-Blue Advanced is approximately 10–20% more active than our popular Enhanced K-Blue substrate, depending on assay parameters.

K-Blue Advanced offers:
- Superior activity
- Low background and excellent signal-to-noise ratio
- Ideal for a range of substrate incubation times
- Minimum shelf life of 36 months at 2–8°C
- Rapid turnover rate
- Linear signal response across a range of HRP concentrations
- Increased sensitivity, especially at high HRP concentrations
- Compliant with Annex XVII for REACH

Activity Comparison

Ten microliters of horse radish peroxidase (HRP) (0.5 x concentration) + one hundred microliters of substrate per well

Linearity of Response

Twenty microliters of horse radish peroxidase (HRP) diluted in NEOGEN EIA diluent was added to standard flat bottom 96 well microtiter plate wells and one hundred microliters of substrate was added. Rate of blue color formation (milli-absorbance/minute at 650 nm) was measured every two minutes for sixteen minutes at room temperature (20–25°C). Rate of blue color formation was plotted versus HRP concentration.
# NEOGEN® TMB Substrates

## Activity Comparison

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>Shelf Life</th>
<th>Product Features</th>
<th>Available Sizes</th>
<th>Product No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>K-Blue®</strong></td>
<td>High activity</td>
<td>24 months when stored at 2–8°C</td>
<td>Excellent performance RTU (ready-to-use) Low background</td>
<td>200 mL 500 mL 1 L 20 L (1 x 20 L)</td>
<td>379175 379176 379177 379257</td>
</tr>
<tr>
<td><strong>Advanced</strong></td>
<td>High activity</td>
<td>48 months when stored at 2–8°C</td>
<td>Longest shelf life of NEOGEN TMB substrates RTU (ready-to-use) Low background</td>
<td>200 mL 500 mL 1 L 20 L (1 x 20 L)</td>
<td>308175 308176 308177 308257</td>
</tr>
<tr>
<td><strong>Enhanced</strong></td>
<td>High activity</td>
<td>24 months when stored at 2–8°C</td>
<td>Ideal for assays requiring a less active substrate RTU (ready-to-use) Low background</td>
<td>200 mL 500 mL 1 L 20 L (1 x 20 L)</td>
<td>382175 382176 382177 382257</td>
</tr>
<tr>
<td><strong>Select</strong></td>
<td>Mid-level activity</td>
<td>24 months when stored at 2–8°C</td>
<td>Ideal for assays requiring a less active substrate RTU (ready-to-use) Low background</td>
<td>200 mL 500 mL 1 L 20 L (1 x 20 L)</td>
<td>309175 309176 309177 309257</td>
</tr>
<tr>
<td><strong>Custom</strong></td>
<td>Mid-level activity</td>
<td>36 months when stored at 2–8°C</td>
<td>Ideal for assays requiring a less active substrate RTU (ready-to-use) Low background</td>
<td>200 mL 500 mL 1 L 20 L (1 x 20 L)</td>
<td>331175 331176 331177 331257</td>
</tr>
<tr>
<td><strong>Aqueous</strong></td>
<td>Mid-level activity</td>
<td>36 months when stored at 2–8°C</td>
<td>100% solvent free Ideal when working under strict regulatory requirements RTU (ready-to-use) Low background</td>
<td>200 mL 500 mL 1 L 20 L (1 x 20 L)</td>
<td>334175 334176 334177 334257</td>
</tr>
<tr>
<td><strong>Alert®</strong></td>
<td>Kinetics similar to K-Blue</td>
<td>36 months when stored at 2–8°C</td>
<td>Clearly indicates when substrate and acid stop have been added to the wells (turns pink) Ideal for sandwich-based HRP assays 100% solvent free RTU (ready-to-use) Low background</td>
<td>200 mL 500 mL 1 L 20 L (1 x 20 L)</td>
<td>334175 334176 334177 334257</td>
</tr>
</tbody>
</table>

We recognize that one TMB substrate will not meet the specifications of all HRP-based immunoassays. Therefore, NEOGEN® offers multiple unique one-bottle colorimetric formulas to meet specific requirements of different assay systems.

Ten microliters of HRP (0.5x concentration) + one hundred microliters substrate per well

## Ordering Information

- 319175 200 mL
- 319176 500 mL
- 319177 1 L
- 319257 20 L (1 x 20 L)