



Excellent Signal-to-Noise | REACH Compliant | Long-term Stability

**K-BLUE® LUMINESCENT**

# K-Blue<sup>®</sup> Luminescent

NEOGEN<sup>®</sup>'s newest formula, K-Blue<sup>®</sup> Luminescent is a two-component luminol-based substrate that offers excellent sensitivity down to femtogram range and has good long-term stability. The substrate is optimized to emit max light signal at 430 nm and is intended for microwell applications.

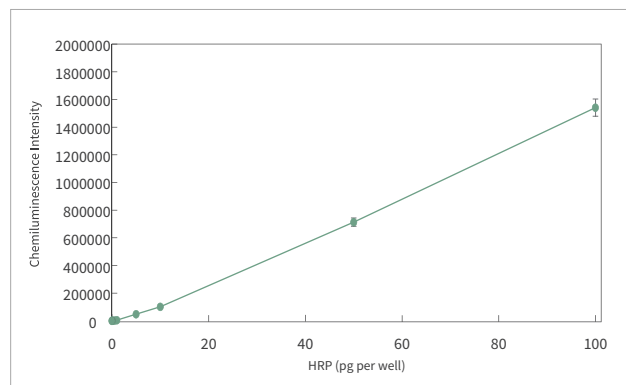
K-Blue Luminescent has a wide dynamic range for HRP detection making it a versatile substrate for immunoassay production. The substrate has excellent signal-to-noise ratio supporting detection at either high or low HRP concentrations. K-Blue Luminescent maintains 90% of the maximal signal between 0–60 minutes after substrate addition.

Our ISO 9001 certified quality management system ensures that we use high-quality development and manufacturing processes for our K-Blue formulas. We consistently provide large diagnostic kit manufacturers high performance substrates following the ISO quality standard. K-Blue Luminescent demonstrates excellent lot-to-lot consistency.

## *K-Blue Luminescent Offers:*

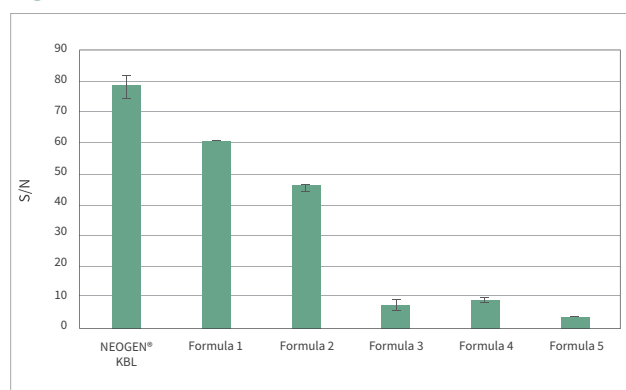
- Wide linear range from nanogram to femtogram
- Sensitive substrate with limit of detection in the femtogram range
- Very low background and excellent signal-to-noise ratio
- Retains 90% of its maximal activity for 60 minutes
- Stable working solution up to five days
- Minimum shelf life of 18 months at 2–8°C
- Compliant with Annex XVII for REACH

## Dose-response Curve



*Ten microliters/well of HRP standard + 140 microliters/well of K-Blue Luminescent.*

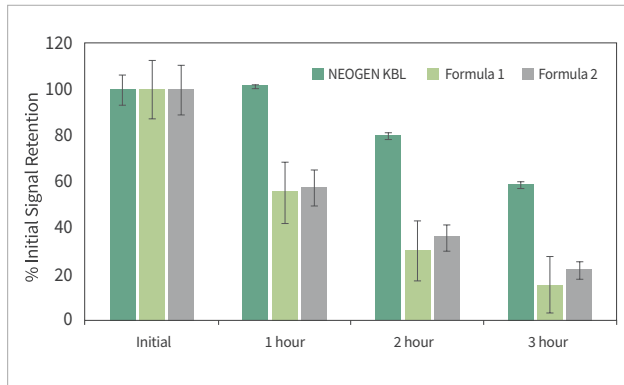
## Signal-to-Noise Comparison



*Background: PBS containing no HRP is added 10 microliters/well + 140 microliters of substrate.*

*Signal: HRP diluted to 0.5 ng/mL in PBS is added at 10 microliters/well +140 microliters of substrate.*

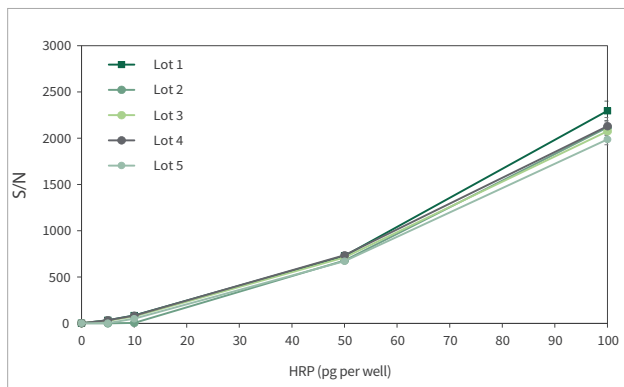
## Signal Retention Comparison



*Background: PBS containing no HRP is added at 10 microliters/well + 140 microliters of substrate.*

*Signal: HRP diluted at 10 ng/mL in PBS is added to 10 microliters/well + 140 microliters of substrate.*

## Lot-to-lot Consistency



*Background: PBS containing no HRP is added at 10 microliters/well + 140 microliters of substrate.*

*Signal: HRP diluted to 10, 5, 1, 0.5, 0.1, 0.05, and 0.01 ng/mL in PBS is added at 10 microliters/well + 140 microliters of substrate.*



## Ordering Information

383175 200 mL (2 x 100 mL)  
 383176 500 mL (2 x 250 mL)  
 383177 1 L (2 x 500 mL)



## Additional NEOGEN Chemiluminescent HRP Substrates

Product	Activity	Shelf Life	Product Features	Available Sizes	Product No.
<b>Chemiluminescent Elite Plus</b>	HRP Microwell and Membrane	18 months when stored at 2-8°C	High sensitivity, picogram (10 <sup>-12</sup> g) higher range Luminol-based chemistry Two component system	200 mL	324175
				500 mL	324176
				1 L	324177
<b>Chemiluminescent Elite</b>	HRP Microwell and Membrane	18 months when stored at 2-8°C	High sensitivity, picogram (10 <sup>-12</sup> g) lower range Luminol-based chemistry Two component system	200 mL	323175
				500 mL	323176
				1 L	323177

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