

## SuperLight™ Atto HRP Reagent

### Ultra-Sensitive Luminescent Detection of HRP Conjugates

#### DESCRIPTION

*PEROXIDASES (or peroxide reductases, EC number 1.11.1.x) are a large group of enzymes that break up peroxides and play important roles in various biological processes.* Horse Radish Peroxidase (HRP) is an enzyme commonly used for conjugation. One example is antibody-HRP conjugate that is frequently and widely used in immunoassays such as ELISA and Western blots. BioAssay Systems' SuperLight™ Atto HRP Reagent provides an ultra-sensitive luminescent means for detecting HRP activity and its conjugates. The improved reagent rapidly reacts with peroxidase or the HRP in an HRP-conjugate, producing highly stable and intense luminescence for maximum detection of the peroxidase activity in solution assays.

#### KEY FEATURES

**Single reagent:** Single, stable, and ready to use.

**High sensitivity:** Detection of HRP in the atto- to low femtogram/well range.

#### APPLICATIONS

HRP determination in ELISA, Southern Blot, Western Blot.

#### KIT CONTENTS (200 TESTS IN 96-WELL PLATES)

**SLAP Reagent: 20 mL. Cat#: SLAP-200**

For 200 tests in 96well plate or 800 tests in 384well plate.

For bulk orders of >500mL reagent, please inquire by email [order@bioassaysys.com](mailto:order@bioassaysys.com).

**Storage conditions.** The kit is shipped at room temperature. Store reagent at -20°C upon receiving. Use within 6 months after receipt.

**Precautions:** reagents are for research use only. Normal precautions for laboratory reagents should be exercised while using the reagents. Please refer to Material Safety Data Sheet for detailed information.

#### PROCEDURES

**Important:** Prior to assays, let the SLAP Reagent equilibrate to room temperature. Although not essential, use of a multi-channel pipette is recommended for adding Reagent to wells.

##### A. 96-Well Assays

1. For ELISAs, after washing off free HRP detection antibody, remove any remaining wash buffer. Add 90  $\mu$ L of the SLAP Reagent to each well.

For liquid samples, add 10  $\mu$ L of sample per well. Add 90  $\mu$ L of the SLAP Reagent to each well.

2. Immediately tap plate to mix. Read luminescence after 10min.

##### B. 384-Well Assays

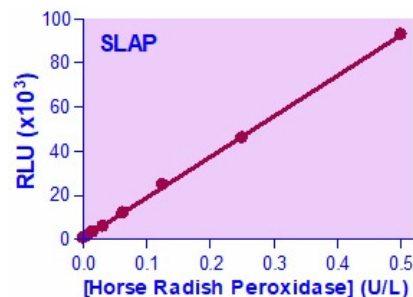
1. For ELISAs, after washing off free HRP detection antibody, remove any remaining wash buffer. Add 25  $\mu$ L of the SLAP Reagent to each well.

For liquid samples, add 5  $\mu$ L sample per well. Add 25  $\mu$ L of the SLAP Reagent to each well.

2. Immediately tap plate to mix. Read luminescence at 10min.

#### MATERIALS REQUIRED, BUT NOT PROVIDED

Pipetting devices and accessories (e.g. multi-channel pipettor), solid white flat-bottom 96-well plates, centrifuge tubes, and plate reader capable of measuring light intensity.



Free HRP Standard Curve in a 96-Well Plate Assay

#### RELATED PRODUCTS

- QuantiFluo™ HRP Reagent (QFHRP-25mL), single-reagent, OD570nm, FL530/585nm.
- Quantichrom™ HRP Detection Reagent (DTMB-200), colorimetric, OD 450nm.
- QuantiFluo™ ALP Reagent (QFALP-6mL), single reagent for Alkaline Phosphatase detection, FL360/450nm.

#### LITERATURE

1. Lin, A.V. (2015). Direct ELISA. *Methods Mol Biol.* 1318:61-7.
2. Tobos, C.I. et al (2019). Sensitivity and binding kinetics of an ultra-sensitive chemiluminescent enzyme-linked immunosorbent assay at arrays of antibodies. *J Immunol Methods.* 474:112643.
3. Dong, J. et al. (2019). Enhanced chemiluminescence enzyme-linked immunoassay for the determination of DNA methyltransferase 1 in human serum. *Luminescence.* 34(3):368-374.