Caution: For Laboratory Use. A product for research purposes only.

**Product Numbers:** NEL75001EA / NEL751001EA

**STORAGE CONDITIONS**

Store at -20°C until first use. Store at 4°C after thawing. **Do not re-freeze this product.**

**DESCRIPTION**

Streptavidin-HRP (NEL750) and Streptavidin-AP (NEL751) are highly sensitive detector conjugates. These conjugates bind to biotin labeled proteins in Western blot, ELISA and immunohistochemistry assays. They also bind to nucleic acids labeled with biotinylated nucleotide analogs in Southern and/or Northern blot, colony/plaque screen and in situ hybridization (ISH) assays.

When used in homologous DNA dot hybridizations with a biotin N\(^6\) labeled DNA probe, as little as 100 femtograms of nucleic acid are detectable on Kodak X-OMAT Blue Autoradiography film with PerkinElmer Renaissance® Nucleic Acid Chemiluminescence Reagents in 2 hours or PerkinElmer Renaissance CDP-Star® Nucleic Acid Chemiluminescence Reagents in 5-10 minutes.

These conjugates can also be used for in situ hybridization (ISH) or immunohistochemistry (IHC) assays as part of Tyramide Signal Amplification (TSA), whereby deposition of tyramide-linked detector molecules are catalyzed by horseradish peroxidase for subsequent amplified signal detection. Both the Streptavidin-HRP and Streptavidin-AP conjugates can be used, in conjunction with chromogenic substrates, as reporter molecules for biotin-tyramide deposition. Streptavidin-HRP can also be used as a catalyst for tyramide-linked molecule deposition in assays where nucleic acids (in situ) or proteins (IHC) are labeled with biotin.

**SUGGESTED WORKING CONDITIONS**

The following are suggested conjugate concentration ranges for various assays. Individual conditions may require some conjugate titration to obtain optimal signal clarity.

**SA-HRP**

Membrane assays (e.g., Southern, Northern, Western, colony/plaque): Dilute conjugate 1:12,500-1:25,000 in 1X Phosphate Buffered Saline (PBS), pH 7.1-7.4 (e.g., Dulbecco’s PBS), 0.1% SDS, 0.05% Tween-20, blocking reagent (e.g., 0.5% NEN™ Blocking Reagent) or equivalent.

Slide assays (i.e., ISH and IHC) including TSA: Dilute conjugate 1:1250-1:2500 in 0.10 M Tris-HCl, pH 7.5, 0.15 M NaCl, blocking reagent (e.g., 2% sheep serum) or equivalent.

**SA-AP**
Membrane assays (e.g., Southern, Northern, Western, colony/plaque): Dilute conjugate 1:25,000-1:50,000 in 1X Phosphate Buffered Saline (PBS), pH 7.1-7.4 (e.g., Dulbecco’s PBS), 0.1% SDS, 0.05% Tween-20, blocking reagent (e.g., 0.5% Renaissance® Blocking Reagent) or equivalent.

Slide assays (i.e., ISH and IHC) without amplification: Dilute conjugate 1:1000-1:2000 in 0.10 M Tris-HCl, pH 7.5, 0.15 M NaCl, blocking reagent (e.g., 2% sheep serum) or equivalent.

Slide assays (i.e., ISH and IHC) with TSA: Dilute conjugate 1:2500-1:5000 in 0.10 M Tris-HCl, pH 7.5, 0.15 M NaCl, blocking reagent (e.g., 2% sheep serum) or equivalent.

STABILITY

Streptavidin-HRP and Streptavidin-AP are stable for at least 6 months from the date of shipment, when stored at 4°C

HAZARD WARNING

This product is considered to be non-hazardous. Although the product is classified as non-hazardous, we strongly recommend using prudent laboratory practices: Avoiding unnecessary contact, use of gloves, eye protection, lab coats, etc. when using this or any other laboratory reagent.

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