ab270228
Europium-Streptavidin

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For the detection of biotinylated molecules.

This product is for research use only and is not intended for diagnostic use.
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1. Overview

Europium-Streptavidin (ab270228) involves the covalent attachment of the streptavidin to the specially treated surface of 200 nm Europium (Eu) particles, for the detection of biotinylated molecules. The surface treatment of the particles makes the conjugate resistant to aggregation and the extremely broad Stokes shift of the Eu chelate particle allows you to reach a higher sensitivity in your immunoassay, preventing non-specific fluorescence interference. The conjugate in this kit is freeze dried. You simply reconstitute the mixture with the Resuspension Buffer provided in the kit and the conjugate is ready to use.

The kit comes in 2 sizes:
80 μL
400 μL
2. Materials Supplied and Storage

Kit can be stored for 1 year from receipt, if components have not been reconstituted.

Avoid repeated freeze-thaws of reagents.

<table>
<thead>
<tr>
<th>Item</th>
<th>80 μL</th>
<th>400 μL</th>
<th>Storage temperature (before prep)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x Resuspension Buffer</td>
<td>1 vial</td>
<td>1 vial</td>
<td>-20°C or +4°C</td>
</tr>
<tr>
<td>200 nm Europium - Streptavidin conjugate (Lyophilized)</td>
<td>1 vial</td>
<td>1 vial</td>
<td>-20°C</td>
</tr>
</tbody>
</table>

3. Materials Required, Not Supplied

These materials are not included in the kit, but will be required to successfully perform this assay:

- Adjustable pipette or multiple-channel pipette

4. General guidelines, precautions, and troubleshooting

Please observe safe laboratory practice and consult the safety datasheet.

For general guidelines, precautions, limitations on the use of our assay kits and general assay troubleshooting tips, particularly for first time users, please consult our guide: [www.abcam.com/assaykitguidelines](http://www.abcam.com/assaykitguidelines)

For typical data produced using the assay, please see the assay kit datasheet on our website.
5. Reagent Preparation

Prepare fresh reagents immediately prior to use.

5.1 Resuspension Buffer:
 Allow the 1x Resuspension Buffer to warm to room temperature.

5.2 200 nm Europium - Streptavidin conjugate (Lyophilized):
80μL size: Add 80μL of 1x Resuspension Buffer to get final 0.5% solids conjugate.
400μL size: Add 400μL of 1x Resuspension Buffer to get final 0.5% solids conjugate.
The conjugate is now ready to use.

5.3 Once reconstituted, initial conjugate storage at 4°C is recommended. The Resuspension Buffer added for the reconstitution of the lyophilized mixture is a good storage buffer. Do not store the reconstituted conjugate at -20°C. Do not expose to light.

6. Assay Procedure

– Equilibrate all materials and prepared reagents to room temperature just prior to use and gently agitate.

6.1 When excited with UV light, the Eu chelate particle shows a maximal absorbance at 365nm and emission at 610 nm. The large Stokes shift leads to a low background signal and makes the conjugated particle ideal for immunochromatographic assays as well as microwell-based assays.

6.2 Because of the extended lifetime of approximately 0.5 milliseconds, the 200nm Europium - Streptavidin conjugate can be used in a wide range of time-resolved fluorescence applications for the indirect detection of antigens and DNA targets in many biotin/streptavidin interaction based assays.

6.3 We recommend that you run the conjugate in a range between 0.005% - 0.0002% solids. However you may need to optimize this according to your application.
7. Typical Data

Data provided for demonstration purposes only.

Figure 1. Typical ELISA data with a time resolved fluorescence (TRF) readout. Varying dilutions of Europium–Streptavidin (ab270228) were added to a plate coated with biotinylated ovalbumin, and detected using a plate reader.
8. Notes
Technical Support

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