Streptavidin APC

RESEARCH APPLICATIONS

Research applications* include studies of:

- Staining by indirect immunofluorescence when used with biotinylated antibodies
- Analysis of multicolor immunofluorescence using a biotinylated antibody and fluorochrome-conjugated antibodies\(^1\)

DESCRIPTION

Source

Streptavidin APC is prepared chromatographically from *Streptomyces avidinii*.\(^1\)

Product configuration

The following is supplied in phosphate buffered saline (PBS) containing a stabilizer and a preservative.

<table>
<thead>
<tr>
<th>Form</th>
<th>Number of tests</th>
<th>Volume per test (µL)(^a)</th>
<th>Amount provided (µg)</th>
<th>Total volume (mL)</th>
<th>Concentration (µg/mL)</th>
<th>Stabilizer</th>
<th>Preservative</th>
</tr>
</thead>
<tbody>
<tr>
<td>APC</td>
<td>100</td>
<td>20</td>
<td>See product label</td>
<td>2.0</td>
<td>See product label</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
</tr>
</tbody>
</table>

\(^a\) Volume required to stain 10⁶ cells.

Reagent required but not provided

CD4 Biotin (Leu-3a Biotin), Catalog No. 347321, 20 µL/test

**NOTE** Performance has been optimized using CD4 Biotin (Leu-3a Biotin) as the primary antibody.

PROCEDURE

**NOTE** Do not use a medium that contains biotin, such as RPMI 1640.

1. After incubation with biotinylated antibody, add 20 µL of reagent to 10⁶ peripheral blood mononuclear cells (PBMCs) in 50 µL of medium containing 0.1% sodium azide.
2. Mix thoroughly and incubate for 15 to 30 minutes in the dark at 2°C–8°C.
3. Wash with 1X PBS with 0.1% sodium azide.
4. Add 0.5 mL of 1% paraformaldehyde, mix thoroughly, and analyze.
   If samples are not analyzed immediately, mix thoroughly just before analysis.

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* The published methods in the cited references have not been developed or tested by BD.

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NOTE We recommend using software capable of storing and analyzing five-parameter list-mode data, such as BD CellQuest™, BD CellQuest™ Pro, or BD FACSDiva™ software.

REPRESENTATIVE DATA

Performed on PBMCs with scatter gates set on the lymphocyte fraction. Laser excitation is at 600 nm.

NOTE When excited by a laser beam at 600 nm from a dye laser, 633 nm from a helium-neon (HeNe) laser, or 647 nm from a krypton-ion laser, streptavidin APC emits red light with an emission maximum at approximately 660 nm. The emitted light is collected in the fluorescence-4 (FL-4) channel.

Figure 1 Analyzed with a BD FACS™ brand flow cytometer

HANDLING AND STORAGE

Store vials at 2°C–8°C. Conjugated forms should not be frozen. Protect from exposure to light. Each reagent is stable until the expiration date shown on the bottle label when stored as directed.

WARNING

All biological specimens and materials coming in contact with them are considered biohazards. Handle as if capable of transmitting infection and dispose of with proper precautions in accordance with federal, state, and local regulations. Never pipette by mouth. Wear suitable protective clothing, eyewear, and gloves.

CHARACTERIZATION

To ensure consistently high-quality reagents, each lot of antibody is tested for conformance with characteristics of a standard reagent. Representative flow cytometric data is included in this data sheet.

WARRANTY

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REFERENCES

3. Shapiro HM, Glazer AN, Christenson L, Williams JM, Strom TB. Immunofluorescence measurement in a

4. Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline —

5. Centers for Disease Control. Perspectives in disease prevention and health promotion update: universal
precautions for prevention of transmission of human immunodeficiency virus, hepatitis B virus, and

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