CD56 (NCAM16.2)

FORMS

<table>
<thead>
<tr>
<th>Form</th>
<th>Catalog number</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC</td>
<td>340723</td>
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<tr>
<td>PE</td>
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</tr>
<tr>
<td>PE-Cy7</td>
<td>325809</td>
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<tr>
<td>APC</td>
<td>341026</td>
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</table>

DESCRIPTION

Specificity

The CD56 antibody recognizes a heavily glycosylated 140-kilodalton (kDa) isoform of NCAM, a member of the immunoglobulin (Ig) superfamily. The CD56 antibody also recognizes 180-kDa and 120-kDa isoforms of NCAM found in neurons and muscle, respectively.1

Antigen distribution

The CD56 antigen is present on approximately 10% to 25% of peripheral blood lymphocytes.2 It is present on essentially all resting and activated CD16+ natural killer (NK) lymphocytes. The density of the CD56 antigen on NK cells increases upon activation.3 The CD56 antigen is also expressed on approximately 5% of CD3+ peripheral blood lymphocytes.2 CD3+CD56+ T lymphocytes comprise a unique subset of cytotoxic T lymphocytes that mediates non–major histocompatibility complex (MHC)-restricted cytotoxicity.4

CD16+CD56+ NK cells and dendritic cells activate one another in a reciprocal fashion.5 The CD56 antigen promotes homophilic adhesion in neurons, and may be involved in homophilic adhesion of NK cells.

Clone

The CD56 antibody, clone NCAM16.2,6 is derived from the hybridization of P3-X63-Ag8.653 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with immunoaffinity-enriched NCAM from detergent extracts of adult human brain.7

Composition

The CD56 antibody is composed of mouse IgG2b heavy chains and kappa light chains.

Product configuration

The following are 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)</th>
<th>Amount provided (µg)</th>
<th>Total volume (mL)</th>
<th>Concentration (µg/mL)</th>
<th>Stabilizer</th>
<th>Preservative</th>
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<tr>
<td>FITC</td>
<td>50</td>
<td>20</td>
<td>6</td>
<td>1.0</td>
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<td>Gelatin</td>
<td>0.1% Sodium azide</td>
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<tr>
<td>PE</td>
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<td>Gelatin</td>
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</table>

Analyte Specific Reagent. Analytical and performance characteristics are not established.
CAUTION Some PE-Cy7 and APC-R700 conjugates show changes in their emission spectra with prolonged exposure to paraformaldehyde or light. For overnight storage of stained cells, wash and resuspend in buffer without paraformaldehyde after 1 hour of fixation.

CAUTION Prolonged exposure of cells to paraformaldehyde can lead to increased autofluorescence in the violet channels. For overnight storage of stained cells, wash and resuspend in buffer without paraformaldehyde after 1 hour of fixation.

CAUTION For optimal results, use BD Horizon™ Brilliant Stain Buffer any time two or more BD Horizon Brilliant™ dyes are used in the same multicolor staining cocktail.

NOTE As a consideration for instrument selection, the APC-R700 conjugate is read off the red laser using an appropriate longpass mirror and bandpass filter. (For your information, the technical information for this data sheet was generated on a BD FACS™ brand flow cytometer using a 640-nm red laser, a 685 longpass mirror, and a 712/21 bandpass filter.)

Purity

FITC: ≤5% free fluorophore at bottling, as measured by size-exclusion chromatography (SEC)

PE, PE-Cy7, APC, APC-R700: ≤20% free fluorophore at bottling, as measured by SEC

BV421, BV510: ≤25% free fluorophore at bottling, as measured by ion-exchange chromatography (IEC)

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 infection⁸,⁹ 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.

Some reagents are bottled with ProClin 300, and contain 0.003% of a mixture of CMIT/MIT (3:1), CAS number 55965-84-9.

Warning

H317 May cause an allergic skin reaction.

Wear protective gloves/eye protection. Wear protective clothing. Avoid breathing mist/vapours/spray. If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. Dispose of contents/container in accordance with local/regional/national/international regulations.
CHARACTERIZATION
To ensure consistently high-quality reagents, each lot of antibody is tested for conformance with characteristics of a standard reagent.

WARRANTY
Unless otherwise indicated in any applicable BD general conditions of sale for non-US customers, the following warranty applies to the purchase of these products.

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REFERENCES

PATENTS AND TRADEMARKS
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