CD27 (L128)

FORMS

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<th>Form</th>
<th>Catalog number</th>
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<td>PE</td>
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<td>655019</td>
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<tr>
<td>PerCP-Cy5.5</td>
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DESCRIPTION

Specificity

The CD27 antibody recognizes a 110–120-kilodalton (kDa) disulfide-linked homodimer comprised of two 55-kDa polypeptide chains. The CD27 antigen is a lymphocyte-specific member of the tumor necrosis factor receptor (TNFR) super family, which also includes nerve growth factor receptor, CD30, CD40, CD95 (Fas), CD120a, CD120b, CD134 (OX 40), and CD137. The CD27 antigen is also known as S152, T14, TNFRSF7, and Tp55.

Antigen distribution

The CD27 antigen is present on most peripheral blood T lymphocytes and medullary thymocytes, and is upregulated upon activation with the release of a soluble form, 28–32 kDa. Following exposure to antigens, CD45RA+ T lymphocytes respond by upregulating the CD27 antigen. After maximal stimulation, the CD27 antigen cannot be re-expressed on long-term cultures or on CD45RA−CD27+ T lymphocytes. It is also detected on a subpopulation of approximately 33% of circulating B lymphocytes and on some natural killer (NK) cells. Two subpopulations of B lymphocytes bearing the CD27 antigen secrete Ig(M) (δ+) and IgG (δ−). Binding of the CD27 antigen, expressed on T cells, to its ligand, CD70 (CD27L), provides a co-stimulatory signal, leading to T-cell proliferation, production of cytotoxic T cells, and enhanced production of cytokines. Binding of CD70 to CD27 expressed on B cells leads to B-cell proliferation and immunoglobulin production. The CD27 antigen becomes hyperphosphorylated on serine residues upon activation of T cells. Signaling through the CD27 antigen activates NFκB and stress-activated protein kinase (SAPK)/c-Jun N-terminal kinase (JNK).

Clone

The CD27 antibody, clone L128, is derived from the hybridization of Sp2/0 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with activated peripheral blood lymphocytes.

Composition

The CD27 antibody is composed of mouse IgG1 heavy chains and kappa light chains.

Analyte Specific Reagent. Analytical and performance characteristics are not established.
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)a</th>
<th>Amount provided (µg)</th>
<th>Total volume (mL)</th>
<th>Concentration (µg/mL)</th>
<th>Stabilizer</th>
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</table>

a. Volume required to stain 10^6 cells.

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

PE, APC, PerCP-Cy5.5: ≤20% free fluorophore at bottling, as measured by SEC

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.

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.

To ensure consistently high-quality reagents, each lot of antibody is tested for conformance with characteristics of a standard reagent.

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