Bcl-6
An important transcription factor for B and T follicular helper (Tfh) cell differentiation

BD Biosciences now offers a monoclonal antibody to human and mouse Bcl-6, a key transcription factor expressed in germinal center B cells and CD4+ T follicular helper (Tfh) cells.1

Bcl-6 (clone K112-91) purified and fluorochrome-conjugated antibodies

The new BD Pharmingen™ Bcl-6 monoclonal antibody reacts with human and mouse Bcl-6, a transcriptional repressor and member of the BTB/POZ zinc-finger family of transcription factors.2

Available conjugates include Alexa Fluor® 488, Alexa Fluor® 647, and PE formats to enable maximum flexibility for design of multicolor fluorescent antibody staining panels in combination with any of our family of BD FACSTM brand flow cytometers.

Bcl-6 expression and function

Bcl-6 expression is induced by IL-21 and can lead to the expression of CXCR5, a homing molecule for the germinal center.1 Germinal centers are regions within the lymph nodes where antigen-specific B cells mature into memory B cells or plasma cells. Bcl-6 is believed to facilitate B cell proliferation and somatic hypermutation within the germinal center. Bcl-6 is hypothesized to support somatic hypermutation through the repression of the DNA damage sensor ATR. In contrast, as B cells mature into plasma cells, Bcl-6 levels and cell proliferative capacity decrease while levels of Blimp-1 and secreted effectors increase.2-4

In addition to its role in B cell maturation, Bcl-6 is considered to be the master transcription factor for Tfh cells. Tfh cells help B cells proliferate and undergo affinity maturation. Bcl-6 facilitates the differentiation of CD4+ T cells into Tfh cells through the inhibition of other key T helper cell transcription factors such as T-bet (Th1), GATA-3 (Th2), and RORγT (Th17).1,4,5

Visit bdbiosciences.com/tcells for more information.
Bcl-6

References

Key Markers of Germinal Center B and Tfh Cells

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<tr>
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<th>Germinal Center B Cells</th>
<th>Mouse</th>
<th>Tfh Cells&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Cytokines</th>
<th>Transcription factor</th>
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<tr>
<td></td>
<td>Human CD19&lt;sup&gt;+&lt;/sup&gt;, CD38&lt;sup&gt;+&lt;/sup&gt;</td>
<td>B220&lt;sup&gt;+&lt;/sup&gt;, GL7&lt;sup&gt;+&lt;/sup&gt;, Fas/CD95&lt;sup&gt;+&lt;/sup&gt;, IgD&lt;sup&gt;+&lt;/sup&gt;</td>
<td>CD4&lt;sup&gt;+&lt;/sup&gt;, CD57&lt;sup&gt;+&lt;/sup&gt;, CXCR5&lt;sup&gt;+&lt;/sup&gt;, PD-1&lt;sup&gt;+&lt;/sup&gt;, ICOS&lt;sup&gt;+&lt;/sup&gt;</td>
<td>IL-21</td>
<td>Bcl-6</td>
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