

## Comprehensive B Cell Panel Components and Reference Ranges

<b>CD19 B Cells</b>	
<b>0 up to 2 years</b>	10.2-18.5% of CD45 + Lymphocytes
<b>2 years up to 4 years</b>	16.5-25.8% of CD45 + Lymphocytes
<b>4 years up to 6 years</b>	13.4-21.1% of CD45 + Lymphocytes
<b>6 years up to 11 years</b>	9.8-17.7% of CD45 + Lymphocytes
<b>11 years up to 18 years</b>	10.2-15.4% of CD45 + Lymphocytes
<b>18 years and up</b>	1.4-15.0% of CD45 + Lymphocytes
<b>NAÏVE (CD27-IGD+)</b>	
<b>0 up to 2 years</b>	90.9-96.2% of total B cells
<b>2 years up to 4 years</b>	83.4-90.1% of total B cells
<b>4 years up to 6 years</b>	76.3-84.9% of total B cells
<b>6 years up to 11 years</b>	69.4-80.4% of total B cells
<b>11 years up to 18 years</b>	75.2-86.7% of total B cells
<b>18 years and up</b>	45.1-91.4% of total B cells
<b>Total Non-Switch (CD27+IGD+)</b>	
<b>0 up to 2 years</b>	1.6-4.1% of total B cells
<b>2 years up to 4 years</b>	4.2-6.9% of total B cells
<b>4 years up to 6 years</b>	4.1-9.0% of total B cells
<b>6 years up to 11 years</b>	7.5-12.4% of total B cells
<b>11 years up to 18 years</b>	4.6-10.2% of total B cells
<b>18 years and up</b>	0.0-25.0% of total B cells
<b>Total Class Switched (CD27+IGD-)</b>	
<b>0 up to 2 years</b>	0.1-1.9% of total B cells
<b>2 years up to 4 years</b>	1.5-4.1% of total B cells
<b>4 years up to 6 years</b>	3.3-7.4% of total B cells
<b>6 years up to 11 years</b>	5.2-12.1% of total B cells
<b>11 years up to 18 years</b>	3.3-9.6% of total B cells
<b>18 years and up</b>	1.1-30.5% of total B cells
<b>CD21Lo B Cells (CD21LOCD38LO)</b>	
<b>0 up to 2 years</b>	0.3-4.0% of total B cells
<b>2 years up to 4 years</b>	1.8-3.6% of total B cells
<b>4 years up to 6 years</b>	1.8-5.2% of total B cells
<b>6 years up to 11 years</b>	0.9-3.5% of total B cells
<b>11 years up to 18 years</b>	0.9-3.3% of total B cells
<b>18 years and up</b>	0.0-8.4% of total B cells
<b>Transitional (IGM+CD38+)</b>	
<b>0 up to 2 years</b>	8.3-15.8% of total B cells
<b>2 years up to 4 years</b>	5.1-10.7% of total B cells
<b>4 years up to 6 years</b>	5.4-9.2% of total B cells
<b>6 years up to 11 years</b>	4.5-9.2% of total B cells
<b>11 years up to 18 years</b>	3.9-7.8% of total B cells
<b>18 years and up</b>	0.0-8.3% of total B cells
<b>Plasmablasts (IGM-CD38++)</b>	
<b>0 up to 6 years</b>	0.2-5.5% of total B cells
<b>6 years up to 11 years</b>	0.5-5.3% of total B cells
<b>11 years up to 18 years</b>	0.6-6.5% of total B cells
<b>18 years and up</b>	0.0-3.0% of total B cells
<b>IGM Only Memory (CD27+IGM+)</b>	
<b>0 up to 18 years</b>	No reference ranges for these populations, for informational purposes only
<b>18 years and up</b>	0.0-33.0% of CD27 + B cells
<b>IGM+IGD+Memory (CD27+IGM+IGD+)</b>	
<b>0 up to 18 years</b>	No reference ranges for these populations, for informational purposes only
<b>18 years and up</b>	7.9-69.3% of CD27 + B cells

<b>IGM-IGD-Memory (CD27+IGD-IGM-)</b>	
<b>0 up to 18 years</b>	No reference range for these populations, for informational purposes only.
<b>18 years and up</b>	14.1-76.3% of CD27 + B cells
<b>Plasmablasts (CD27+CD38+++IGM-)</b>	
<b>0 up to 18 years</b>	No reference range for these populations, for informational purposes only.
<b>18 years and up</b>	0.0-9.6% of CD27 + B cells