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Explore the Clinical Laboratory Diagnostics App for additional laboratory reference information.

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# IgG Subclasses

The Comprehensive Solution  
for IgG Determination

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# Total IgG and IgG Subclass Determination from One Source

The determination of IgG subclass concentrations has become increasingly important in clinical diagnostics. It is indicated for diagnostic clarification in patients with:

- Increased susceptibility to infection<sup>1</sup>
- A malfunctioning immune defense<sup>1</sup>
- Abnormally frequent and/or prolonged or severe infections that cannot be explained by standard clinical and laboratory data<sup>2</sup>

Measuring only total IgG may mask deficiencies in subclasses 2, 3, and/or 4 due to a possible high concentration of predominant IgG1.

In addition, IgG4-related disease is a relatively new and growing entity of immune-mediated origin, often with multi-organ impairment. Although the diagnosis of this disease must be confirmed histopathologically, serum IgG4 is an important marker in the evaluation

and longitudinal assessment. Delays in diagnosing IgG4-related disease can lead to cirrhosis, pancreatic failure, advanced renal dysfunction, and many other complications. Therapy with glucocorticoids is considered a first choice, with very good patient outcomes. If this therapy is used, it should be monitored over a certain period (12 months is recommended) by measuring serum IgG4 for evaluation of treatment or detection of relapse.<sup>3</sup>

The reference ranges below give a broad overview of the different subclass concentrations from early childhood to adulthood to support your diagnosis. They have been established with Siemens Healthineers assays and analyzers for IgG determination.

## Optimal Alignment of Assays and Analyzers

Siemens Healthineers has years of experience in developing innovative products. By optimally aligning our assays and analyzers for reliable and precise testing, we provide a complete and powerful combination in IgG subclass testing, including antigen-excess security protocols for detection of high-dose hook effects.

As your sole source for IgG determination, we provide reagents, supplementary reagents, analyzers, and service. Our flexible and reagent-independent packaging enables you to order all components separately so you can reduce cost, minimize waste, and ensure a sufficient supply of standards and controls.

Please ask your local Siemens Healthineers representative for more detailed information.

## Reference Ranges In Serum

Age Group	n	Total IgG 2.5th–97.5th Percentile (g/L)	IgG1 2.5th–97.5th Percentile (g/L)	IgG2 2.5th–97.5th Percentile (g/L)	IgG3 2.5th–97.5th Percentile (g/L)	IgG4 2.5th–97.5th Percentile (g/L)
≤1 year	29	2.29–9.54	1.51–7.92	0.26–1.36	0.093–0.920	0.004–0.464
>1 to ≤3 years	84	3.11–12.04	2.65–9.38	0.28–2.16	0.087–0.864	0.009–0.742
>3 to ≤6 years	113	4.77–15.51	3.62–12.28	0.57–2.90	0.129–0.789	0.013–1.446
>6 to ≤12 years	105	5.65–15.22	3.77–11.31	0.68–3.88	0.158–0.890	0.012–1.699
>12 to ≤18 years	86	6.07–14.84	3.62–10.27	0.81–4.72	0.138–1.058	0.049–1.985
>18 years	279	7.37–16.07	4.05–10.11	1.69–7.86	0.11–0.85	0.03–2.01

The above reference ranges (2.5th to 97.5th percentile in g/L) were established by testing samples from 417 apparently healthy children from North America and Central Europe as well as 279 apparently healthy adults from Central Europe (data on file).