
Lab Dept: Chemistry

Test Name: IGG SUBCLASSES

General Information

Lab Order Codes: IGS

Synonyms: Immunoglobulin G Subclasses

CPT Codes: 82784 – Gammaglobulin; IgG
82787 – Gammaglobulin; immunoglobulin subclasses

Test Includes: Total IgG concentration and IgG subclass 1-4 concentrations reported in mg/dL.

Logistics

Test Indications: Immunoglobulins, also known as humoral antibodies, recognize antigens and initiate mechanisms that destroy antigens. Its major function appears to be neutralization of toxins (bacterial or viral), in tissue spaces. IgG has four subclasses that are slightly different in structure of their variable regions and in electrophoretic mobility.

Lab Testing Sections: Chemistry (all specimens analyzed on the St Paul campus)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 day

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: Green top (Li Heparin) top (preferred)
Alternate: Red, marble or gold top tube

Draw Volume: 3.0 mL blood

Processed Volume: 1.5 mL serum/plasma

Collection: Routine venipuncture

Special Processing: Lab Staff: Centrifuge specimen, remove serum aliquot into a plastic sample cup. Specimens can be stored at refrigerated temperatures. Centrifuge turbid or particulate samples prior to analysis.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen; turbid samples that do not clear after centrifugation

Interpretive

Reference Range:

IgG Total	
Age:	Range mg/dL:
Newborn:	611 - 1542 mg/dL
1 month:	241 - 870 mg/dL
2 months:	198 - 577 mg/dL
3 months:	169 - 536 mg/dL
4 - 6 months:	165 - 781 mg/dL
7 - 9 months:	282 - 1026 mg/dL
10 months - 1 year:	331 - 1165 mg/dL
2 years:	407 - 1009 mg/dL
3 years:	423 - 1090 mg/dL
4 - 5 years:	445 - 1187 mg/dL
6 - 8 years:	608 - 1229 mg/dL
9 - 10 years:	584 - 1509 mg/dL
>10 years:	734 - 1570 mg/dL
IgG Subclasses:	

Age:	G1 (mg/dL)	G2 (mg/dL)	G3 (mg/dL)	G4 (mg/dL)
0 - 3 mos:	218 - 496	40 - 167	4 - 23	1 - 33
3 - 6 mos:	143 - 394	23 - 147	4 - 100	1 - 14
6 - 9 mos:	190 - 388	37 - 60	12 - 62	0 - 1
9 mos - 3 yrs:	286 - 680	30 - 327	13 - 82	1 - 65
3 - 5 yrs:	381 - 884	70 - 443	17 - 90	1 - 116
5 - 7 yrs:	292 - 816	83 - 513	8 - 111	1 - 121
7 - 9 years	422 - 802	113 - 480	15 - 133	1 - 84
9 - 11 years	456 - 938	163 - 513	26 - 113	1 - 121
11 - 13 yrs:	456 - 952	147 - 493	12 - 179	1 - 121
13 - 15 yrs:	347 - 993	140 - 440	23 - 117	1 - 83
>15 yrs:	422 - 1292	117 - 747	41 - 129	1 - 291

Critical Values:

N/A

Limitations:

N/A

Methodology:

Nephelometry, Siemens Dimension Vista 500

References:

Siemens Dimension Vista IgG Flex Insert, P/N K7056G00E1406, Rev 3/2011
Siemens Dimension Vista IgG1 Flex Insert, P/N K7080G00E0802, Rev 10/2009
Siemens Dimension Vista IgG2 Flex Insert, P/N K7081G00E0802, Rev 10/2009
Siemens Dimension Vista IgG3 Flex Insert, P/N K7082G00E0802, Rev 10/2009
Siemens Dimension Vista IgG4 Flex Insert, P/N K7083G00E0803, Rev 10/2009

Updates:

4/29/2014: Method update and addition of plasma sample as preferred.
2/8/2016: Update alt tube types
7/24/2018: Updated draw volume, minimum volume.

