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outside the
U.S. only

Atellica Solution

Anemia Assays

Anemia, defined as a low blood hemoglobin concentration, is a public-health concern with significant health consequences, as well as adverse impacts on social and economic development.¹ Although the most reliable indicator of anemia is blood hemoglobin concentration, measurements of this concentration alone do not determine the cause of anemia. Anemia may result from a number of causes, with the most significant contributor being iron deficiency.² Siemens Healthineers provides one of the most comprehensive menus for anemic disorders to help clinicians accurately diagnose the disease and monitor treatment.



Chemistry
Haptoglobin
Iron
Soluble Transferrin Receptors (sTfR)*
Total Iron-binding Capacity (TIBC)
Transferrin



Immunoassay
Active-B12
EPO
Ferritin
Folate
RBC Folate
Vitamin B12

- Reduce send-out costs by consolidating your anemia testing across Siemens Healthineers immunoassay, clinical chemistry, and hematology systems.
- Diagnose and monitor treatment of anemia patients using the comprehensive menu of anemia tests on the Atellica® Solution, including Active-B12, EPO, and sTfR Assays.
- Identify anemia sooner with the Atellica Solution Active-B12 Assay, a better indicator of vitamin B12 status.^{3,4}

The Atellica Solution provides a broad and expanding menu to help your lab drive better clinical and business outcomes. The Atellica® CH Analyzer combines proven IMT, EMIT, PETINIA, and photometry technologies, delivering a menu of over 110 chemistry assays. The Atellica® IM Analyzer uses proven advanced acridinium ester (AE) technology, with over 50 patents granted or pending.

Product availability may vary by country.
*The sTfR Alliance Application is manufactured by a third party and distributed by Siemens Healthcare Diagnostics Inc. Not available for sale in the U.S.

Assay Characteristics†

Assay	Specimen Types	Sample Volume (µL)	Time to First Result (min)	Measuring Interval	Detection Capability	Reagent Onboard Stability (days)	Lot Calibration Interval (days)
Atellica CH Analyzer							
Haptoglobin	Serum	3.4	10	1–340 mg/dL (0.01–3.40 g/L)	LoB: 0 mg/dL (0.00 g/L) LoD: 1 mg/dL (0.01 mmol/L)	30 per pack	10
Iron	Serum Plasma (lithium heparin)	25	10	2–1000 µg/dL (0.4–179.0 µmol/L)	LoB 1 µg/dL LoD 2 µg/dL	30 per well	180
Soluble Transferrin Receptors (sTfR)*	Serum Plasma	8.9	9	0.50–11.77 mg/L	LoB 0.07 mg/L LoD 0.13 mg/L LoQ 0.50 mg/L	14 per pack	6
Total Iron-binding Capacity (TIBC)	Serum	24	10	40–670 µg/dL (7.16–119.93 mol/L)	LoB 6 µg/dL LoD 9 µg/dL	7 per well	180
Transferrin	Serum and plasma (lithium heparin, potassium EDTA)	2	10	1–440 mg/dL (0.01–4.40 g/L)	LoB 0 mg/dL LoD 1 mg/dL	30 per well	60
Atellica IM Analyzer							
Active-B12	Serum	50	38	4.25–146.00 pmol/L	LoB 0.46 pmol/L LoD 0.83 pmol/L LoQ 4.25 pmol/L	28	28
EPO	Serum, plasma (dipotassium EDTA, lithium heparin, sodium heparin).	100	19	0.98–750.00 mIU/mL	LoB 0.69 mIU/mL LoD 0.98 mIU/mL LoQ 0.98 mIU/mL	28	28
Ferritin	Serum EDTA plasma Heparinized plasma	10	14	0.5–1650.0 ng/mL (1.1–3630.0 pmol/L)	LoB 0.3 ng/mL LoD 0.7 ng/mL LoQ 0.9 ng/mL	28	50
Folate	Serum Dipotassium EDTA whole blood	100	14	0.35–24.00 ng/mL (0.79–54.36 nmol/L)	LoB 0.19 ng/mL LoD 0.38 ng/mL	14	14
RBC Folate	Heparinized whole blood	100	14	0.35–24.00 ng/mL (0.79–54.36 nmol/L)	LoB 0.19 ng/mL LoD 0.38 ng/mL	14	14
Vitamin B12	Serum EDTA plasma Heparinized plasma	100	14	45–2000 pg/mL (33–1476 pmol/L)	LoB 38 pg/mL LoD 54 pg/mL	18	30

Tables of Method Comparison Equations†

Assay	Specimen	Comparative Assay (x)	Regression Equation	Sample Interval	n	r
Atellica CH Analyzer						
Haptoglobin	Serum	ADVIA® 1800 Chemistry Hapt	$y = 1.06x - 0 \text{ mg/dL}$ ($y = 1.06x - 0 \text{ mmol/L}$)	8–310 mg/dL (0.08–3.10 mmol/L)	105	0.997
Iron	Serum	ADVIA 1800 Chemistry Iron_2	$y = 0.99x - 2 \text{ µg/dL}$ ($y = 0.99x - 0.4 \text{ µmol/L}$)	3–981 µg/dL (0.5–175.6 µmol/L)	103	0.994
Soluble Transferrin Receptors (sTfR)*	Serum	ADVIA 1800 Chemistry sTfR	$y = 0.97x - 0.023 \text{ mg/L}$	0.56–10.30 mg/L	102	0.997
Total Iron-binding Capacity (TIBC)	Serum	ADVIA Chemistry TIBC	$y = 1.05x - 20 \text{ µg/dL}$ ($y = 1.05x - 3.58 \text{ µmol/L}$)	132–596 µg/dL (23.63–106.68 µmol/L)	137	0.995
Transferrin	Serum	ADVIA 1800 Chemistry TRF	$y = 0.98x - 3 \text{ mg/dL}$ ($y = 0.98x - 0.03 \text{ g/L}$)	4–422 mg/dL (0.04–4.22 g/L)	102	0.997
Atellica IM Analyzer						
Active-B12	Serum	ADVIA Centaur® AB12	$y = 1.05x - 1.21 \text{ pmol/L}$	6.77–137.67 pmol/L	113	0.98
EPO	Serum	ADVIA Centaur EPO	$y = 0.94x + 0.58 \text{ mIU/mL}$	3.92–682.96 mIU/mL	119	1.00
Ferritin	Serum	ADVIA Centaur FER	$y = 1.03x - 0.6 \text{ ng/mL}$ ($y = 1.03x - 1.3 \text{ pmol/L}$)	3.6–1479.5 ng/mL (7.9–3254.9 pmol/L)	100	1.00
Folate	Serum	ADVIA Centaur Folate	$y = 0.94x - 0.01 \text{ ng/mL}$ ($y = 0.94x - 0.02 \text{ nmol/L}$)	0.64–22.78 ng/mL (1.45–51.60 nmol/L)	105	0.99
RBC Folate	RBC hemolysate	ADVIA Centaur Folate	$y = 0.93x + 25.89 \text{ ng/mL}$ ($y = 0.93x + 58.64 \text{ nmol/L}$)	181.65–1343.39 ng/mL (411.44–3042.78 nmol/L)	120	0.94
Vitamin B12	Serum	ADVIA Centaur VB12	$y = 1.00x + 7 \text{ pg/mL}$ ($y = 1.00x + 5 \text{ pmol/L}$)	47.6–1936 pg/mL (35.1–1428 pmol/L)	139	0.994

Ordering Information

Assay	SMN No.	Tests per Kit	Contents
Atellica CH Analyzer			
Haptoglobin			
Atellica CH Hapt	11097643	300 (2 x 150)	2 x Pack 1 Well 1: 18.0 mL of Atellica CH Hapt Reagent 1 Well 2: empty 2 x Pack 2 Well 1: 5.3 mL of Atellica CH Hapt Reagent 2 Well 2: empty 2 x vial Hapt R2 1.0 mL of Atellica CH Hapt R2
Atellica CH LSP CAL	11099434		6 calibrator levels, 1 x 1.0 mL each level
Iron			
Atellica CH Iron_2	11097601	1792 (4 x 448)	4 x Pack 1 Well 1: 23.5 mL of Atellica CH Iron_2 Reagent 1 Well 2: 23.5 mL of Atellica CH Iron_2 Reagent 1 4 x Pack 2 Well 1: 8.2 mL of Atellica CH Iron_2 Reagent 2 Well 2: 8.2 mL of Atellica CH Iron_2 Reagent 2
Atellica CH CHEM CAL	11099411		1 calibrator level, 12 x 3.0 mL each
Soluble Transferrin Receptors (sTfR)*			
Randox sTfR reagent kit	11318376	85 (1 x 85)	R1: Buffer, 1 x 9.0mL R2: Antibody-latex Reagent, 1 x 5.8 mL
Randox sTfR Calibrator	11306493		6 calibrator levels, 1 x 1.0 mL each level
Randox sTfR QC	11309043		3 x 1.0 mL control level 1 3 x 1.0 mL control level 2
Atellica CH Empty Reagent Packs	11097534		8 packs in a carton
Total Iron-binding Capacity (TIBC)			
Atellica CH TIBC	11097525	800 (4 x 200)	4 x Pack 1 Well 1: 9.2 mL of Atellica CH TIBC Reagent 1 Well 2: 9.2 mL of Atellica CH TIBC Reagent 1 4 x Pack 2 Well 1: 5.5 mL of Atellica CH TIBC Reagent 2 Well 2: 5.5 mL of Atellica CH TIBC Reagent 2
Atellica CH SPCL CHEM CAL	11099438		1 calibrator level, 10 x 5.0 mL each
Transferrin			
Atellica CH Trf	11097613	880 (4 x 220)	4 x Pack 1 Well 1: 12.4 mL of Atellica CH Trf Reagent 1 Well 2: 12.4 mL of Atellica CH Trf Reagent 1 4 x Pack 2 Well 1: 5.0 mL of Atellica CH Trf Reagent 2 Well 2: 5.0 mL of Atellica CH Trf Reagent 2
Atellica CH LSP CAL	11099434		6 calibrator levels, 1 x 1.0 mL each level
Atellica IM Analyzer			
Active-B12			
Atellica IM AB12	10733001	100	1 ReadyPack® primary reagent pack containing Atellica IM AB12 Lite Reagent and Solid Phase 1 vial Atellica IM AB12 CAL low calibrator 1 vial Atellica IM AB12 CAL high calibrator
Atellica IM AB12 QC	10733002		1 x 7.0 mL quality control level 1 1 x 7.0 mL quality control level 2
EPO			
Atellica IM EPO	10733006	100	1 ReadyPack primary reagent pack containing Atellica IM EPO Lite Reagent and Solid Phase 1 vial Atellica IM EPO CAL low calibrator 1 vial Atellica IM EPO CAL high calibrator
Atellica IM EPO QC	10733008		1 x 7.0 mL control level 1 1 x 7.0 mL control level 2 1 x 7.0 mL control level 3
Ferritin			
Atellica IM Fer	10995569	90	1 ReadyPack primary reagent pack containing Atellica IM Fer Lite Reagent and Solid Phase
Atellica IM Fer	10995568	450	5 ReadyPack primary reagent pack containing Atellica IM Fer Lite Reagent and Solid Phase
Atellica IM CAL C	10995506		2 x 5.0 mL low calibrator 2 x 5.0 mL high calibrator
Atellica IM CAL C	10995507		6 x 5.0 mL low calibrator 6 x 5.0 mL high calibrator

Ordering Information continued on back page.

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†See assay-specific instructions for use.

Ordering Information

Assay	SMN No.	Tests per Kit	Contents
Atellica IM Analyzer			
Folate			
Atellica IM Fol	10995572	140	1 ReadyPack primary reagent pack containing Atellica IM Fol Lite Reagent, Solid Phase, and Folate-binding Protein 2 vials Atellica IM Fol CAL low calibrator 2 Vials Atellica IM Fol CAL high calibrator
Atellica IM Fol	10995573	700	5 ReadyPack primary reagent packs containing Atellica IM Fol Lite Reagent, Solid Phase, and Folate-binding Protein 2 vials Atellica IM Fol CAL low calibrator 2 vials Atellica IM Fol CAL high calibrator
Atellica IM Fol DTT/REL (releasing agent)	10995576		3 x 8.0 mL/vial DTT 3 x 4.0 mL/vial Release Agent 3 empty ReadyPack ancillary reagent packs
Vitamin B12			
Atellica IM VB12	10995714	100	1 ReadyPack primary reagent pack containing Atellica IM VB12 Lite Reagent and Solid Phase
Atellica IM VB12	10995715	500	5 ReadyPack primary reagent packs containing Atellica IM VB12 Lite Reagent and Solid Phase
Atellica IM CAL C	10995506		2 x 5.0 mL low calibrator 2 x 5.0 mL high calibrator
Atellica IM CAL C	10995507		6 x 5.0 mL low calibrator 6 x 5.0 mL high calibrator
Atellica IM VB12 DTT/REL (releasing agent)	10995718		1 x 2.0 mL/vial DTT 2 x 25.0 mL/vial Releasing Agent 4 empty ReadyPack ancillary reagent packs
Atellica IM T3/T4/VB12 ANC (ancillary reagent)	10995682		2 ReadyPack ancillary reagent packs containing 23.6 mL/pack
Atellica IM T3/T4/VB12 ANC (ancillary reagent)	10995683		6 ReadyPack ancillary reagent packs containing 23.6 mL/pack

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Product availability may vary from country to country and is subject to varying regulatory requirements. Please contact your local representative for availability.

References:

1. WHO. The global prevalence of anaemia in 2011. Geneva: World Health Organization; 2015.
2. <https://www.hematology.org/Patients/Anemia/Iron-Deficiency.aspx>.
3. Valente E, Scott JM, Ueland PM, et al. Diagnostic accuracy of holotranscobalamin, methylmalonic acid, serum cobalamin, and other indicators of tissue vitamin B12 status in the elderly. Clin Chem. 2011;57(6):856-63.
4. Nexo E, Hoffmann-Lucke E. Holo-transcobalamin, a marker of vitamin B12 status: analytical aspects and clinical utility. Am J Clin Nutr. 2011;94(1):359S-365S.

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