

## HOTLINE: Effective February 18, 2020

## 0025023 Selenium, Serum or Plasma

Specimen Required: <u>Patient Prep:</u> Diet, medication, and nutritional supplements may introduce interfering substances. Patients should be encouraged to discontinue nutritional supplements, vitamins, minerals, and non-essential over-the-counter medications (upon the advice of their physician).

Collect: Royal Blue (No Additive), Royal Blue (K<sub>2</sub> EDTA), or Royal Blue (Na<sub>2</sub> EDTA).

Specimen Preparation: Separate from cells ASAP or within 2 hours of collection. Transfer 2 mL serum or plasma to an ARUP Trace Element-Free Transport Tube (ARUP supply #43116) available online through eSupply using ARUP Connect<sup>TM</sup> or contact ARUP Client Services at (800) 522-2787. (Min: 0.5 mL)

Storage/Transport Temperature: Room temperature. Also acceptable: Refrigerated or frozen.

<u>Unacceptable Conditions:</u> Specimens that are not separated from the red cells or clot within 2 hours. Specimens collected in containers other than specified. Specimens transported in containers other than specified.

Stability (collection to initiation of testing): Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Indefinitely

## Reference Interval: 23.0-190.0 µg/L

**Interpretive Data:** Elevated results may be due to contamination from skin or other collection-related issues, including the use of a noncertified metal-free collection/transport tube. If contamination concerns exist due to elevated levels of serum/plasma selenium, confirmation with a second specimen collected in a certified metal-free tube is recommended.

Serum selenium levels can be used in the determination of deficiency or toxicity. Plasma and serum contains 75 percent of the selenium measured in whole blood and reflects recent dietary intake. Selenium deficiency can occur endemically or as a result of sustained TPN or restricted diets and has been associated with cardiomyopathy and may exacerbate hypothyroidism. Selenium toxicity is relatively rare. Excess intake of selenium can result in symptoms consistent with selenosis and include gastrointestinal upset, hair loss, white blotchy nails, and mild nerve damage.

See Compliance Statement B: www.aruplab.com/CS

HOTLINE NOTE: Remove information found in the Note field.

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