
Lab Dept: Chemistry

Test Name: SALICYLATE LEVEL

General Information

Lab Order Codes: SALI

Synonyms: Aspirin level; ASA Level; Acetylsalicylic Acid

CPT Codes: 80329 – Analgesics, non-opioid; 1 or 2
OR
G0480 – Drug, test, definitive (if appropriate)

Test Includes: Salicylate concentration reported in mg/dL.

Logistics

Test Indications: Aspirin has analgesic, antipyretic, and anti-inflammatory properties. Measurement of serum salicylate concentration is important in diagnosis and treatment of overdose and in monitoring therapy.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 4 hours

Special Instructions: N/A

Specimen

Specimen Type: Blood

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

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL serum/plasma

Collection: Routine venipuncture. Mix tubes containing anticoagulant by gentle inversion.

Special Processing: Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Store at refrigerated temperatures.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

Reference Range: Therapeutic concentration: 15 - 30 mg/dL

Critical Values: Toxic concentration: >30 mg/dL
Lethal concentration: >70 mg/dL

Limitations: Salicyluric acid cross reacts with this method.

Sulfapyridine at elevated levels (300 mg/L) may lead to falsely low results.

Sulfasalazine at elevated levels (300 mg/L) may lead to falsely high results.

Salicylate blood levels do not correlate well with degree of toxicity in chronic salicylism. Other drugs may displace protein-bound salicylate leading to increased toxicity. Salicylate doses inpatients on chronic therapy may approach toxic levels. Salicylate levels in such patients are best performed just prior to the next dose.

Methodology: Enzymatic Colorimetric

References: Abbott Alinity c Salicylate Reagent Kit Instructions for Use, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. February 2018

Abbott Alinity c Multiconstituent Calibrator Package Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. February 2018

Bio-Rad Liquichek Immunoassay Plus Package Insert, Bio-Rad Laboratories, Irvine, CA, 92618, USA

Vista Chem 2 Calibrator Instructions for Use, Siemens Healthcare Diagnostics, PN 751120.001 - US, Release date, 3/2008

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition

Bio-Rad Multiqual Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618, USA

Updates:

2/4/2016: CPT update

2/9/2016: Update alt tube type

12/8/2020: Updated for method Abbott Alinity, method Siemens Vista removed