

LAB79 Blood Gas, Venous

BMC, CRH, LFH, OCH, FTT, FOX

Specimen Type

Whole Blood: Venous, Mixed Venous

Specimen Tubes for Blood Gases

Specimen Tubes for Blood Gases (ABG/VBG), O₂ Sat, OxyHb, CarboxyHb, MetHb



LITHIUM HEPARIN
(LIGHT GREEN OR MINT TOP)



DO NOT SEND SPECIMENS VIA
TUBE SYSTEM- SPECIMENS
WILL BE REJECTED



SODIUM HEPARIN
(DARK GREEN TOP)



Preferred Container

Lithium Heparin coated syringe

Lithium Heparin Tube

Expel all air bubbles from syringe immediately after collection.

Alternative Container

Mint Green top tube (prefer Lithium Green top tube with no gel 4.0mL draw Lithium Heparin only when submitted to the Clinical Lab for Blood Gas, with lactate and/or basic metabolic panel unspun).

Minimum Volume to Submit for Testing

2 mL whole blood

Transportation Needs

Deliver ASAP within 15 minutes.

Do not send green top tubes or syringes through pneumatic tube system.
 Do not centrifuge.
 Stable 30 minutes at room temperature.
 Do Not Send on Ice

Causes for Rejection

Mislabeled or unlabeled specimen
 Less than 95% draw for vacutainer tubes
 Specimen not received within 30 min of collection at room temp
 Specimen delivered on ICE
 Specimen contaminated with room air (bubbles in syringe or uncapped)
 Clotted or Centrifuged
 Pneumatic tube transport of green top tubes or syringes
 All other tubes or anticoagulant other than lithium heparin whole blood
 No Add-ons

Reference Values

| Analyte | Units | Population | Venous |
|---------------|--------|------------|-------------|
| pH | (none) | All | 7.350-7.450 |
| pCO2 | mmHg | All | 40-50 |
| pO2 | mmHg | All | 29-49 |
| HCO3 | mmol/L | All | 22-29 |
| TCO2 | mmol/L | All | 22-34 |
| O2 Saturation | % | All | 60-85 |
| Base Excess | mmol/L | All | (-2)-(+3) |

| Critical Values | | | | |
|-----------------|--------|------------|------------|-------------|
| Analyte | Units | Population | Venous Low | Venous High |
| pH | (none) | All | <7.25 | >7.60 |
| pCO2 | mmHg | All | < 23 | > 60 |

Available STAT

Yes

Methodology

Ion specific electrodes and spectrophotometry

CPT Code

82803