

Proper Phlebotomy Techniques: This chart displays the most commonly used evacuated blood collection tubes when collecting specimens sent to Diagnostic Laboratory of Oklahoma (DLO). It includes information on the additives, the required number of inversions, and the order of draw.

Note: The order of draw and the number of inversions apply only to specimens collected in plastic tubes.

SPECIMEN MUST BE COLLECTED IN THE LISTED SEQUENCE TO PREVENT CROSS-CONTAMINATION (top to bottom)

TUBE/COLOR	ADDITIVE	INVERSIONS	VOLUME
Clear/White	Blood Cultures	8-10	8-10mL
Light Blue	Sodium Citrate	8-10	
Red	No Gel, Serum (Clot Activator)	8-10	6mL
Red/Yellow	Gel, Serum (Clot Activator)	8-10	8.5mL 3.5mL
Green	Lithium Heparin	8-10	4.5mL
Lavender	EDTA	8-10	4mL 10mL
Royal Blue	(K2) EDTA	8-10	6mL
Gray	Sodium Fluoride (Glucose)	8-10	5mL 10mL

Please ensure all tubes are correctly filled, properly inverted, and labeled.

Important Collection Instructions regarding VOLUME:
The tube must be filled to its designated volume to ensure accurate test results.
Note: When using a winged blood collection set (butterfly needle and a coagulation (light blue top/citrate) tube is the first tube to be drawn, a discard tube should be used first. This discard tube is necessary to fill the tubing's dead space with blood-to-additive ratio in the citrate tube. The discard tube must be filled with 5mL to 10mL of blood.

For all blood collection
After collection, gently invert each blood tube the required number of times as indicated to prevent clotted specimens (CBC)

For serum separator tubes only
Allow specimen to clot upright for 30 - 45 minutes
Centrifuge instructions

- Swing-head centrifuge: Spin at full speed (1100 - 1300g) for 10 minutes.
- Fixed-angle centrifuge: Spin at full speed (1100-1300g) for 15 minutes.
- Always ensure tubes are properly balanced before centrifuge.

 When applicable, use a pipette to transfer the serum into a clear transport vial. Clearly label the vial with the specimen type and two patient identifiers.

Specimen Collection Reference Chart: This chart provides the test code, test name, and required collection container for commonly ordered tests listed on the standard DLO laboratory requisition form. Some tests may require special collection or handling instructions. For tests not included on this chart, please consult the **Virtual Test Guide** or the **Quest Test Directory**, both available at www.dlolab.com

TEST CODE	TEST NAME	COLLECTION TUBE
Organ/Disease Panel		
34392	Electrolyte Panel (Na, K, Cl, CO2)	Red/Yellow
10256	Hepatic Function Panel (Alb, TBili, DBili, IBili, AP, AST, ALT, TP, GLOB)	Red/Yellow
10165	Basic Metabolic Panel w/eGFR (BUN/CREAT) (Na, K, Ca, Cl, CO2, Glu, BUN, Cr)	Red/Yellow
10231	Comp Metabolic Panel w/eGFR (B/C, GLOB, A/G) (Na, K, Ca, Cl, CO2, Glu, BUN, Cr, Ca, TP, Alb TBili, AP, AST, ALT)	Red/Yellow
7600	Lipid Panel (Fasting Specimen) (Chol/HDLC, Non HDL Chol) (TChol, Trig, HDL, Calc, LDL)	Red/Yellow
14852	Lipid Panel w/ reflex LDL (TChol, Chol/HDLC, Trig, HDL, Calc, LDL or LDL when Trig>400)	Red/Yellow
20210	Obstetric Panel w/ reflex (ABO/Rh, Antibody Scr RBC w/ reflex, CBC, RPR (DX) w/ reflex confirm, HbsAg w/ reflex Confirm, Rubella IgG Ab)	Red/Yellow & 2 Lavender
10306	Hepatitis Panel, Acute W/Reflex (Hep A IgM, HbsAg w/ reflex confirm, Hep B core Ab (IgM), HCAb w/ reflex to HCV RNA)	Red/Yellow
Hematology		
510	Hemoglobin	Lavender
509	Hematocrit	Lavender
1759	CBC (H/H, RBC, Indices, Wbc, Plt, MPV, RDW)	Lavender
6399	CBC W/Diff (H/H, Rbc, Indices, WBC, PLT, DIFF, MPV, RDW)	Lavender
8847	PT with INR	Light Blue
763	PTT, Activated	Light Blue
Other Tests		
7788	ABO Group & Rh Type	Red
223	Albumin (Alb)	Red/Yellow
234	Alkaline Phosphatase (AP)	Red/Yellow
823	ALT (SGPT)	Red/Yellow
243	Amylase	Red/Yellow
38318	ANA w/ reflex Titer	Red/Yellow
795	Antibody Scr, Rbc W/Reflex Id	Red
822	AST (SGOT)	Red/Yellow
285*	Bilirubin, Direct (DBili)	Red/Yellow
287*	Bilirubin, Total (TBili)	Red/Yellow
4420	C-Reactive Protein	Red/Yellow
29256	CA 125	Red/Yellow
303	Calcium (Ca)	Red/Yellow
310	Carbon Dioxide (CO2)	Red/Yellow
10124	Cardio CRP	Red/Yellow
978*	CEA	Red/Yellow
330	Chloride (Cl)	Red/Yellow
334	Cholesterol, Total (TChol)	Red/Yellow
375	Creatinine (Cr) w/ eGFR	Red/Yellow
418	Digoxin	Red
8293	Direct LDL	Red/Yellow
457	Ferritin	Red/Yellow
466*	Folic Acid	Red/Yellow
470	FSH	Red/Yellow
482	GGT	Red/Yellow

TEST CODE	TEST NAME	COLLECTION TUBE
Other Tests		
8477	Glucose, GEST, Scr	Gray
484	Glucose Plasma	Gray
483	Glucose, Serum (Glu)	Red/Yellow
8435	HCG, Serum, Qual	Red/Yellow
8396	HCG, Serum, Quant	Red/Yellow
608	HDL	Red/Yellow
496	Hemoglobin A1c	Lavender
512	Hep A Ab, IgM	Red/Yellow
4848	Hep B Core Ab, IgM	Red/Yellow
499	Hep B Surface Ab Qual	Red/Yellow
498	Hep B Surface Ag W/Reflex Confirm	Red/Yellow
8472	Hep C Virus Antibody w/ Reflex RNA, PCR	Red/Yellow
91431	HIV 1/2 Ag/Ab 4th Gen	Red/Yellow
561*	Insulin	Red/Yellow
7573	Iron (Tot), IBC % Sat	Red/Yellow
571	Iron, Total	Red/Yellow
593	LDH	Red/Yellow
599	Lead (B)	Royal Blue
615	LH	Red/Yellow
613	Lithium	Red
622	Magnesium	Red/Yellow
713	Phenytoin	Red
718	Phosphorus	Red/Yellow
733	Potassium (K+)	Red/Yellow
745	Progesterone	Red/Yellow
746	Prolactin	Red/Yellow
754	Protein, Total (TP)	Red/Yellow
5363	PSA, Total	Red/Yellow
4418	Rheumatoid Factor	Red/Yellow
799	RPR (Monitoring) w/ reflex Titer	Red/Yellow
36126	RPR (Dx) w/ reflex Confirm FTA	Red/Yellow
802	Rubella IGG AB	Red/Yellow
809	Sed Rate By Mod West	Lavender
873	Testosterone Total Male (Adult) Immunoassy	Red
15983	Testosterone Total Women / Pediatrics	Red
896	Triglycerides (Trig)	Red/Yellow
899	TSH	Red/Yellow
36127	TSH w/ reflex T-4, Free	Red/Yellow
859	T-3, Total	Red/Yellow
861	T-3 Uptake	Red/Yellow
867	T-4 (Thyroxine), Total	Red/Yellow
866	T-4 (Thyroxine), Free	Red/Yellow
294	Urea Nitrogen (Bun)	Red/Yellow
905	Uric Acid	Red/Yellow
916	Valproic Acid	Red
7065*	Vitamin B12 / Folic Acid	Red/Yellow
927	Vitamin B12	Red/Yellow
17306	Vitamin D, 25-OH, Total, Immunoassay	Red/Yellow

* Indicates specimen must be refrigerated and/or protected from light