

Blood collection and sample preparation for liver panel

Yi Zhou, March 4, 2020

1. Materials

Materials	Size	Catalog#	Manufacturer
Lancet	5MM	NC9891620	Fisher Scientific
BD SST Tubes	400-600 ul	365967	BD
Isoflurane			Vedco Inc

2. Blood collection

- (1) Anesthetize the mouse with isoflurane.
- (2) Restrain the mouse with the non-dominant hand by grasping the loose skin over the shoulders and behind the ears; the skin should be taut over the mandible.
- (3) Puncture the vein with a 5mm lancet slightly behind the mandible (approximately 0.5 cm superior and lateral towards the shoulder from the hairless spot along the jaw line). See image below. The lancet tip should enter the vessel to a shallow depth of 1-2 mm. Blood will flow immediately.



- (4) Collect sample with a BD SSTs collection tube (blood volume ~600ul).
- (5) Euthanize the anesthetized mouse by neck-breaking.

(6) Blood samples will then be centrifuged for at least 5 minutes at a minimum of 2000xg. The special gel in SSTs tube will separate blood cells from serum and make blood to clot quickly. Remove the clear serum to a labeled Eppendorf tube. Take care to avoid hemolysis. Serum will be frozen and stored at -80°C.

3. Sample preparation for liver panel.

The biochemical assays (liver panel) will be performed by the Clinical Lab of the Zuckerberg San Francisco General Hospital.

(1) Contact ZSFG Clinical lab (628-206-6786, chav.doherty@ucsf.edu or Andy.Yeh@ucsf.edu) to get your sample sheet and the special tubes for the autoanalyzer.

(2) Thaw and dilute serum with sterile saline (50ul serum + 100ul sterile saline). Put samples into the labeled tubes.

(3) Send samples and the sample sheet to ZSFG Clinical lab. The result will send back to us in 1-2 days through fax (415-502-4322).