

# **Animal:** Serum & Plasma



**Biological Products** 

# **Domestic Serum**

Domestic Serum is manufactured from animal whole animal blood aseptically drawn into a bottle or tube without anticoagulant. This material is allowed to clot. The blood is then centrifuged to remove the clot, red blood cells and buffy coat, then frozen. Product is tested for pH and total protein (via refractometer). Available as "unfiltered" (as described above), or "filtered". The filtered product is run through a 0.2µm membrane, and undergoes a 48 hour microbial content screening process prior to shipment.

### **Domestic Plasma**

Domestic Plasma is manufactured from animal whole blood aseptically drawn into a specified anticoagulant. The blood is then centrifuged to remove the red blood cells and buffy coat, then frozen on the same day as collection. Product is tested for pH and total protein (via refractometer). Available as "unfiltered" (as described above), or "filtered". The filtered product is run through a 0.2µm membrane, and undergoes a 48 hour microbial content screening process prior to shipment. Plasma is sold as a frozen liquid. It is recommended that this product be aliquoted in single use volumes, as multiple freeze-thaw cycles could impact the product's performance. LAMPIRE offers multiple anticoagulants, see below.

# **Anticoagulants:**

Acid Citrate Dextrose (ACD/ACD-A), Alsevers, Citrate Phosphate Dextrose (CPD), Citrate Phosphate Dextrose Adenine-1 (CPDA-1), Na-Citrate, K2-EDTA, K3-EDTA, Na-EDTA, Li-Heparin, Na-Heparin, Potassium Oxalate\*. Potassium Oxalate Na-Fluoride\*, Sodium Fluoride\*. Custom Anticoagulants\*

\* Some anticoagulants may have additional lead time, surcharge, please inquire.

# **Applications:**

- Study of Cells for Hematology Research
- · Assay & Diagnostics Research
- Hematology & Coagulation Controls
- ELISA, Immuno-precipitation & Western Blot

# **Domestic Serum Processing Options**

#### - Heat Inactivation

Serum is heated to a temperature of 56°C for 30 mins, then immediately placed in an ice bath to prevent over heating. The serum is then centrifuged to remove precipitates. The intent is to inactivate complement and/or destroy mycoplasma.

## - Charcoal Stripping

Activated charcoal is added to the serum, which binds to non-polar molecules such as lipids and hormones. The charcoal is then removed via centrifugation and run through a 0.2µm filter to clarify. Suggested for research where lipids or hormones can interfere with the results of an assay.

# - Delipidation

Silica is added to the serum, which binds to the lipids, both of which are then removed via centrifugation. Suggested in certain species such as mouse or porcine, where serum is innately turbid.























