



New Delhi, India



**Blood Collection Tubes** 

# Staid® Vacutainer

**Evacuated Blood Collection System** 

- ISO & CE Certified
- Leak Proof Design
- Consistent Vacuum
- Accurate Results

#### **Type Of Blood Collection Tube:**

**•CLOT ACTIVATOR** 

•GEL & CLOT ACTIVATOR

•EDTA K2

•EDTA K3

SODIUM CITRATE

•FLUORIDE

Sodium/ Lithium Heparin PRP TUBE (ACD + GEL) PRP TUBE (ACD+BIOTIN)







# Staid® Vacuum Clot Activator Blood Collection Tube



#### Working Principle:

1. Clot Activator: The interior wall is finely coated with coagulant, which can quickly adsorb coagulation factors in the blood, initiating the coagulation process. The clot activator triggers the coagulation cascade reaction, rapidly forming a blood clot.

#### 2. Rapid Coagulation:

- Reduced Clotting Time: Under the action of the clot activator, blood samples can complete coagulation within a few minutes, greatly shortening the waiting time.
- Consistency: These tubes ensure consistency in blood coagulation, reducing detection errors caused by differences in coagulation time.

#### 3. Serum Separation:

- Centrifugation: After coagulation, the blood sample is centrifuged to effectively separate the serum.
  - High-Quality Serum: The separated serum contains various important diagnostic markers and biochemical indicators that can be used for various clinical tests.



# Staid® Vacuum Clot K2 & K3 EDTA Blood Collection Tube



#### 1. Working Principle:

The interior is coated with K2 or K3 EDTA (Ethylenediaminetetraacetic acid), which binds calcium ions in the blood, preventing coagulation and maintaining blood in a liquid state for testing.

#### Effective Anticoagulation:

- Prevents Clotting: EDTA's strong chelating action ensures complete anticoagulation, preventing clot formation.
- Minimal Interference: EDTA minimizes interference in cellular morphology, preserving blood cell structure.

#### **Hematology Applications:**

- CBC and Blood Smears: Used for complete blood counts (CBC) and microscopic blood cell evaluation.
  - Blood Cell Integrity: Ensures accurate results by maintaining blood cell shape and structure.



# Staid® Vacuum Fluoride Blood Collection Tube



#### **Working Principle:**

The interior contains sodium fluoride as a glycolysis inhibitor, and potassium oxalate as an anticoagulant. Sodium fluoride inhibits the breakdown of glucose, preserving its concentration in the blood sample for accurate glucose measurement.

#### Rapid Preservation:

- Glucose Stability: Sodium fluoride ensures glucose remains stable for several hours, preventing glycolysis.
- Minimal Variability: The consistent action of the additives reduces variability in glucose levels, enhancing test accuracy.

#### **Application:**

- Glucose Testing: Ideal for glucose monitoring in diabetes diagnosis and management.
- ◆ Accurate Readings: The tube prevents false low glucose results caused by cellular metabolism during sample handling.



## Staid<sup>®</sup> Vacuum Gel + Clot Activator Blood Collection Tube



#### Working Principle:

The tube contains a clot activator that initiates the clotting process and a gel separator that creates a physical barrier between the clot and the serum after centrifugation.

#### Rapid Coagulation:

- Quick Clotting: The clot activator reduces clotting time, allowing for fast serum preparation.
  - ◆ Consistent Separation: The gel provides consistent separation between serum and cellular components.

    Serum Separation:
  - Centrifugation: After centrifugation, the gel barrier ensures high-quality serum collection.
    - Diagnostic Testing: Ideal for biochemical tests, including liver function and cholesterol testing.



### Staid® Vacuum Sodium Citrate 3.2%



#### Working Principle:

This tube contains 3.2% sodium citrate, which binds calcium ions to prevent coagulation. It is primarily used for coagulation studies.

#### Controlled Anticoagulation:

- Calcium Chelation: Sodium citrate binds calcium in a controlled manner, maintaining accurate blood-toadditive ratios.
- Stable Clotting Factors: Helps preserve clotting factors, ensuring reliable test results.

#### Coagulation Testing:

- ◆ PT/INR and aPTT: Used for Prothrombin Time (PT/INR) and Activated Partial Thromboplastin Time (aPTT) tests.
- Clotting Function: Monitors patients on anticoagulant therapy.



### Staid® Vacuum Sodium Citrate 3.8%



#### **Working Principle:**

This tube contains 3.8% sodium citrate, which functions similarly to 3.2% sodium citrate but with a higher concentration, maintaining anticoagulation by chelating calcium ions.

Specific Coagulation Needs:

- ◆ Higher Citrate Concentration: Effective for specialized coagulation studies that require precise anticoagulation.
  - Preservation of Coagulation Factors: Ensures integrity of clotting factors during testing.

**Advanced Coagulation Testing:** 

- ◆ PT/INR and aPTT: Used in specific cases where a higher citrate concentration is required.
- Accurate Ratios: Helps maintain the correct blood-tocitrate ratio for accurate results.



## Staid® Vacuum Sodium Heparin Blood Collection Tube



#### **Working Principle:**

The tube contains sodium heparin, an anticoagulant that inactivates thrombin and prevents clotting without affecting cellular elements, preserving the sample for testing.

#### Effective Anticoagulation:

- Inhibits Clot Formation: Heparin binds to antithrombin, inhibiting clot formation while maintaining blood cell integrity.
  - Minimal Cellular Changes: The anticoagulant effect minimizes cellular alterations in the blood.

#### Plasma Testing:

- Clinical Chemistry: Ideal for plasma assays in biochemistry and immunology tests.
- Preserved Blood Components: Ensures plasma remains suitable for accurate analysis.



## Staid® Vacuum Lithium Heparin Blood Collection Tube



#### Working Principle:

This tube contains lithium heparin as an anticoagulant, which also inactivates thrombin and prevents blood clotting, making it suitable for plasma sample collection.

Rapid Anticoagulation:

- Effective Thrombin Inhibition: Lithium heparin rapidly prevents clotting while maintaining blood sample integrity.
- ◆ Stable Plasma: Prevents clotting while ensuring the plasma remains suitable for analysis.

Plasma for Testing:

- Biochemical Assays: Used in plasma-based tests, such as electrolyte and hormone assays.
- Reduced Interference: Lithium heparin does not interfere with ion-based tests, ensuring reliable results.



## Staid® PRP Tube (ACD + Gel)



#### **Working Principle:**

This tube contains ACD (Acid Citrate Dextrose) as an anticoagulant and a gel separator. ACD prevents clotting by binding calcium, while the gel aids in separating platelet-rich plasma from other components during centrifugation.

#### **Efficient Anticoagulation and Separation:**

- ◆ ACD Action: ACD stabilizes the blood by preventing clot formation, preserving platelets for PRP preparation.
- ◆ Gel Separator: During centrifugation, the gel forms a barrier between plasma and other blood components.

#### **PRP Extraction:**

- Centrifugation: After spinning, the gel effectively separates the plateletrich plasma from red blood cells.
  - Therapeutic Applications: Ideal for PRP therapies in orthopedics, aesthetics, and wound healing.



### Staid® PRP Tube ACD + Gel + Biotin



#### **Working Principle:**

This tube contains ACD as an anticoagulant and biotin as an additive. ACD prevents blood clotting, while biotin enhances the viability and activity of platelets, making it suitable for specialized PRP treatments.

#### **Enhanced Platelet Preservation:**

- ACD Anticoagulation: ACD prevents clotting by chelating calcium, keeping platelets in suspension.
  - ◆ Biotin Support: Biotin boosts platelet function, improving the quality and effectiveness of PRP.

#### PRP for Specialized Therapy:

- Centrifugation: After centrifugation, the platelets remain active and viable, enriched with biotin.
  - ◆ Advanced Applications: Ideal for advanced PRP procedures in regenerative medicine and aesthetics.