

# HAEMOSTASIS REAGENTS

→ DIAGNOS **THROMBO 1.0**

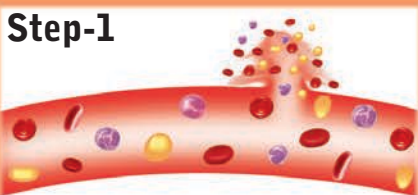
→ DIAGNOS **APTT**



Free  
**Tri-Sodium  
Citrate**  
with each pack

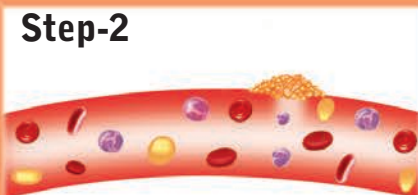
## The **HAEMOSTASIS** Process

**Step-1**



Vessel Injury &  
Vasoconstriction

**Step-2**



Platelet Aggregation &  
Fibrin Formation

**Step-3**



Clot Solidification

# DIAGNOS THROMBO 1.0

Haemostasis Reagent for PT Determination

DIAGNOS THROMBO 1.0 reagent is sensitive to the concentration of the clotting factors II, V, VII and X in the test sample. The liquid thromboplastin acts as a source of tissue factor and activates the clotting mechanism. Each batch of reagents is calibrated against a series of human plasma samples which have assigned INR values for WHO Reference.

## INTENDED USE

- To measure the activity of extrinsic system (II, V, VII & X)
- To monitor oral anticoagulant therapy
- Pre-surgical Screening
- To check the performance of liver in hepatic disease
- To diagnose acquired or inherited bleeding disorders
- To monitor the effectiveness of blood thinning medicine such as warfarin

## SALIENT FEATURES:

- Purified Rabbit brain thromboplastin reagent
- Liquid Stable Ready To Use.
- Results in less than 5 minutes
- ISI value 1.0
- Shelf life of 24 months at 2-8°C
- Anticoagulant : 3.2% Tri-Sodium Citrate

## KIT PRESENTATION

2ml  
5ml  
10x5ml



## What is Haemostasis?

Haemostasis is the arrest of blood flow & control of haemorrhage from an injured blood vessel. It is the process by which the blood is retained within the vascular system. Haemostasis is initiated when a blood vessel is injured. The mechanism of haemostasis is very complex & involves platelets, coagulation factors & the fibrinolytic system. It maintains the balance between Coagulation & Fibrinolysis by involving a series of delicately balanced physical & biochemical changes following an injury to a blood vessel.

## INTENDED USE

- To measure the activity of intrinsic system (VIII, IX, XI & XII)
- Pre-surgical Screening
- To monitor Heparin therapy & other therapeutic anticoagulants
- To diagnose acquired or inherited bleeding disorders
- To diagnose acute condition such as Disseminated Intra-vascular coagulation

## SALIENT FEATURES:

- Liquid Stable Ready To Use.
- Shelf life of 24 months at 2-8°C
- Activator : Ellagic Acid
- Anticoagulant : 3.2% Tri-Sodium Citrate

## KIT PRESENTATION

2ml



# DIAGNOS APTT

Haemostasis Reagent for PTT Determination

DIAGNOS APTT is a ready to use activated Cephaloplastin reagent for use in the in vitro testing of Activated Partial Thromboplastin Time by mechanical clot detection system. The test is used for monitoring heparin therapy, for diagnosing congenital deficiency of factor VIII, IX, XI and XII in presurgery screening.



**Disorders of Blood Coagulation:** The common cause of coagulation disorders include deficiencies of clotting factors, inhibitors of clotting factors & defects in platelets function. The disorders are of two types:

### Hereditary Disorders

- **Haemophilia A:** It is caused by the deficiency of factor VIII. APTT is an effective screening test for classical Haemophilia. It gives abnormal result when F VIII is about 25% of the normal value.
- **Haemophilia B:** It is caused by deficiency of factor IX. APTT is prolonged & PT is normal in haemophilia B. Factor VIII level is normal whereas factor IX is deficient.
- **Haemophilia C:** It is caused by deficiency of factor XI.
- **von-Willebrand syndrome:** It is the one commonly occurring inherited disorder like Haemophilia A caused by the deficiency of factor VIII. The diagnosis is difficult. Generally bleeding time & APTT are abnormal. Factor VIII: Ag is often reduced.

### Acquired Disorders

- **Vitamin K deficiency:** It leads to defects in the synthesis of coagulation factors VII, IX, X & II. It may cause haemolytic disease of new born.
- **Heparin Therapy:** It interferes with coagulation by inhibiting the action of factor IIa, XIa, XIIa & XIII by blocking the conversion of fibrinogen to fibrin. It also inhibit the platelet aggregation. The anticoagulant activity of heparin treated plasma is best monitored by APTT.
- **Diffuse Intra vascular Coagulation (DIC):** DIC syndrome may result from a wide variety of pathological processes which lead to the activation of coagulation system. Intra vascular fibrin deposits results in reduction in the level of coagulation factors in turn leads to imbalance in the haemostatic mechanism & uncontrolled bleeding may start. Generally in this PT, APTT & thrombin time are increased. It also associated with Thrombocytopenia with Leucocytosis.
- **Lupus like Anticoagulant:** Some patients who are taking therapy of Systemic Lupus Erythromatosus may develop coagulation inhibitors known as Lupus like anticoagulants. These substance inhibit the conversion of factor X to factor Xa. In this we find abnormal APTT, PT & thrombin time.

### Importance of INR

- INR is comparable i.e. Coagulation measuring value can be compared despite of different thromboplastin.
- INR allows better monitoring of patient oral anticoagulant therapy
- INR allows standardization of coagulation intensity for certain indication group independent of thromboplastin and the instrument used.
- Under the INR system, a thromboplastin is assigned an ISI value which indicate relative prolongation of prothrombin time and the sensitivity of thromboplasin compared to an International Reference Thromboplastin.
- Thromboplastin with ISI 1.0 have more sensitivity as compared to thromboplastin with ISI greater than 1.0.

*For further information, please contact:*

### **DIAGNOSTIC ENTERPRISES**

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