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Activated Clotting Time（ACT）Assay Kit

Note: Take two or three different samples for prediction before test.

Operation Method: Coagulation method

Cat No: AK1030

Size: 50T/48S ; 100T/96S

Product Composition: Before use, please carefully check whether the volume of the reagent is consistent with the volume in the bottle. If you have any questions, please contact SunLong staff in time.

Product Description:

Activated Clotting Time (ACT) refers to the time required for whole blood to coagulate after adding activators such as kaolin or diatomaceous earth to fresh whole blood. ACT comprehensively reflects the functional status of endogenous coagulation pathways and common pathways, is non-specific, and is influenced by factors such as hypothermia, platelet function, and antifibrinolytic drugs.

After kaolin and phospholipids are added to fresh whole blood, the kaolin activates contact factors and initiates endogenous coagulation pathways; Phospholipids and platelets together provide the phospholipid surface, promoting the assembly of prothrombinase complexes, catalyzing thrombin production and fibrin formation, and leading to blood coagulation.

Reagents and Equipment Required but Not Provided:

Water-bath, timer, adjustable pipette, 5mL/10mL round-bottom plastic test tubes/round-bottom centrifuge tubes.

Operation procedure:

1. Reagent I: Balance and mix at room temperature before use.

2. Sample the round-bottom plastic test tubes/round-bottom centrifuge tubes in the order listed in the table below:

Reagent (mL)

Test tube

Reagent I

0.2

Fresh whole blood to be tested

0.5

When adding fresh whole blood, gently blow and mix well, start timing, place in a 37°C water bath, and gently tilt the tube/centrifuge tube every 10 seconds (do not shake vigorously), observe the condition, and record the coagulation time.

Note:

1.

After adding fresh whole blood to Reagent I, gently blow and mix well; if the mixture is not mixed, it will affect coagulation time.

2.

Samples should avoid hemolysis, and blood collection should avoid tissue damage.

Reagent name

50T Size
100T Size
Storage
Reagent I
Liquid 10 mL×1
Liquid 20 mL×1
2-8℃
3.
The size of the tube/centrifuge tube affects coagulation time; it is recommended to use tubes of the same specification for the same batch of experiments.
4.
The water bath temperature should be constant; too high or too low will affect coagulation time.
5.
The tilting motion of the tube/centrifuge tube should be gentle; it is recommended to tilt it no more than 30° to reduce the contact area between the blood and the tube wall.

Experimental example：

1.
Whole blood from the mouse to be tested was taken and followed the measurement steps, resulting in an ACT of 50 seconds.