



FOR RESEARCH USE ONLY



Total Thrombus formation Analysis System

# Anti-Sedimentation Reagent for T-TAS®01

**NOT FOR SALE. For evaluation purpose only**

## **Important Notice:**

The HD Chip for T-TAS 01 are for Research Use Only (RUO). This document provides technical information regarding the use of the anti-sedimentation reagent to prevent sedimentation of samples that will be testing using the HD Chip for T-TAS 01 (Catalog number 19002).

## **Background:**

Erythrocyte sedimentation is a phenomena that is sometimes observed in anticoagulated blood specimens from subjects with inflammation, pregnancy, anemia, infection, malignancy, diabetes, renal disease, heart disease and collagen vascular diseases <sup>1)</sup>. Recently it has been reported that erythrocytes and white blood cells are involved in blood coagulation <sup>2)</sup>. It has been suggested that high erythrocyte sedimentation ratio (ESR) can affect some platelet function assays (e.g., PFA-100) <sup>3)</sup>. Erythrocyte sedimentation inside the reservoir of the HD assay has been observed in some cases, and the prevention of erythrocyte sedimentation is expected to result in a more accurate and repeatable analysis of HD chip.

## **Reagents and Materials provided:**

Item	Contents	Catalog Number
Anti-Sedimentation Reagent for T-TAS 01	1 tube (2 mL)	NS0001

## **Materials provided:**

Disodium 4,4'-Dinitrostilbene-2,2'-disulfonate (DNDS) ,ProClin950 ,Distilled water

## **Storage and Handling requirements:**

Room temperature (15~25°C), avoid refrigerated storage to prevent precipitation.

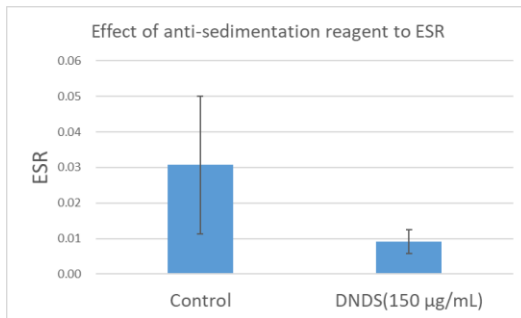
Light sensitive material. Prevent light exposure. Stable for 12 months at room temperature in a dark place.

## Test procedure:

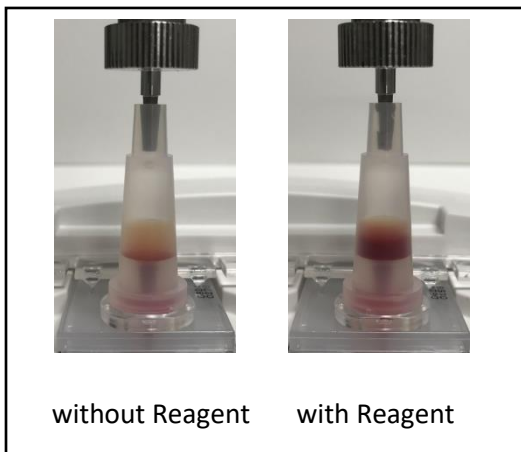
- 1) Follow the instructions for blood collection in the appropriate T-TAS 01 assay chip package insert.
- 2) Dispense 5  $\mu\text{L}$  of anti-sedimentation reagent into microtube.
- 3) Gently mix citrated blood by inverting upside-down three times, transfer 500  $\mu\text{L}$  to the microtube and mix gently.
- 4) Following the instructions in the appropriate T-TAS 01 assay chip package insert, use 480  $\mu\text{L}$  of the sample from the microtube to the CaCTI reagent and apply to HD chip.

## Exmple for the application to T-TAS<sup>®</sup>01 HD assay:

DNDS also didn't affect on CT value of Rotem<sup>®</sup> Intem and Extem, nor on Multiplate<sup>®</sup> ADP and collagen results (data not shown).



Erythrocyte sedimentation ratio (ESR) was significantly reduced by anti-sedimentation reagent (N=7).



When the state of the blood sample in the reservoir without reagent is compared with the state of the blood sample in the reservoir with reagent, erythrocyte sedimentation can be observed and erythrocyte sedimentation can be confirmed in the blood sample without reagent.

On the other hand, blood sample added with reagent prevents the above phenomena, and is expected to contribute more accurate analysis.

## Caution:

Zacros has confirmed that erythrocyte sedimentation can be prevented by the anti-sedimentation reagent. Erythrocyte sedimentation in the reservoir of HD chip may affect the assay results, and the use of the anti-sedimentation reagent is expected to improve the accuracy and repeatability of the T-TAS 01 HD assay.



FOR RESEARCH USE ONLY








### Assistance:

For assistance, please contact your local distributor.

### References:

- 1) Bray C, et. Al: WMJ. 115 (6): 317–21(2016), Erythrocyte Sedimentation Rate and C-reactive Protein Measurements and Their Relevance in Clinical Medicine.
- 2) T Iba, et. Al.: J Thromb Haemost 16(2):231-241(2018), Inflammation and thrombosis: roles of neutrophils, platelets and endothelial cells and their interactions in thrombus formation during sepsis.
- 3) <https://www.uncmedicalcenter.org/app/files/public/4177/bull11-2003.pdf>

### Definition of Symbols:

Symbol	Definition
 YYYY-MM-DD	Use-by date
	Batch code
	Catalog number
	Temperature limit
	Manufacturer
	Do not use if package is damaged
	For research use only. NOT for medical, diagnostic nor other use.



FUJIMORI KOGYO CO., LTD.  
1-1-1 Koishikawa, Bunkyo-ku,  
Tokyo 112-0002 Japan