

Title: CAP Proficiency Tests for Platelet Function (PFPT)

This Supplemental Technical Bulletin (STB) has been developed as a laboratory aid. This STB does not alter, revise or change the information provided in the Technical Bulletin included with the product. In accordance with Good Laboratory Practice and regulatory requirements, each laboratory must develop, validate and implement its own written procedures and expected results.

The PAP 8E and PFPT:

The Kit Instructions (KI) that accompany the PFPT materials are written in a manner intended to include all platelet aggregometers. It is based on the traditional, full volume sample (PRP) size of 450 μ L, and agonist concentrations that are different than those of commercially available reagents. Contemporary aggregometers are designed to run microsamples - 250 μ L.

Attempting to run a 450 μ L sample in a microtest tube or MagneTube™, **MAY NOT** produce an accurate result because the mixing will be suboptimal.

The CAP Resource Committee responsible for this specialty has been made aware of the difficulties the current KI cause their participating laboratories. Recommended changes to the KI that address issues raised by participating laboratories have not been accepted. A minor change has been as a clarification:

Detailed Testing Instructions

Handling Instructions

1. In the event of a short draw or a defective vacuum tube, any 3.2% sodium citrate tube (glass or plastic) may be substituted.
2. **The normal donor used for this Survey must not have taken aspirin or any other anti-platelet drug in the past two weeks.**

Special Testing Instructions

1. **if your laboratory procedure requires a different testing volume, please follow your local standard operating procedure.**

The meaning of "follow your local standard operating procedures" means that the laboratory is suppose to follow the manufacturer's instructions for operating the aggregometer. For the laboratory with a PAP 8E, that means using a 250 μ L total volume, and adjusting other materials for use in that total volume.

Agonist Concentrations:

The agonist concentrations provided with or required for the PFPT testing are often not the same as those that are commercially available. Use the following dilution tables as a guide to adjust Bio/Data ADP, CN 101312, or Epinephrine, CN 101311, to the required concentration.

For ADP, the final concentration of normally reconstituted Bio/Data reagent is 20 μ M. See the table below for how to prepare the dilution to reach that final concentration. (use the one in blue type)

| ADP | <u>Stock</u> | <u>Saline</u> | <u>Working Conc</u> | <u>Final Conc</u> |
|-------------------------|------------------|---------------|---------------------|-------------------|
| Stock | --- | --- | 200 μ M | 20 μ M |
| 1:2 of stock | 250 μ l | 250 μ l | 100 μ M | 10 μ M |
| 1:4 of stock | 125 μ l | 375 μ l | 50 μ M | 5 μ M |
| 1:5 of stock | 100 μ l | 400 μ l | 40 μ M | 4 μ M |
| 1:6.6 of stock | 75 μ l | 425 μ l | 30 μ M | 3 μ M |
| 1:10 of stock | 50 μ l | 450 μ l | 20 μ M ** | 2 μ M |
| 1:20 of stock | 25 μ l | 475 μ l | 10 μ M | 1 μ M |
| 1:40 of stock | 12 μ l | 485 μ l | 5 μ M | 0.5 μ M |
| 1:10 of ** (20 μ M) | 50 μ l of ** | 450 μ l | 2 μ M | 0.2 μ M |

ADP= 2×10^{-4} (200 μ M) Makes 500 μ l (0.5 mL) **MAKE ALL DILUTIONS WITH 0.85% OR 0.9% SALINE**

For Epinephrine, the final concentration is 100 μ M. Follow the table below to reach the 10 μ M final concentration (use the one in blue)

| EPINEPHRINE | <u>Stock</u> | <u>Saline</u> | <u>Working Conc</u> | <u>Final Conc</u> |
|---------------|--------------|---------------|---------------------|-------------------|
| Stock | --- | --- | 1000 μ M | 100 μ M |
| 1:2 of stock | 100 μ l | 100 μ l | 500 μ M | 50 μ M |
| 1:4 of stock | 50 μ l | 150 μ l | 250 μ M | 25 μ M |
| 1:10 of stock | 20 μ l | 180 μ l | 100 μ M | 10 μ M |
| 1:20 of stock | 10 μ l | 190 μ l | 50 μ M | 5 μ M |

Epinephrine 1×10^{-3} (1000 μ M) (Makes 200 μ l)