

Instructions for the BMP LeukoChek

The BMP LeukoChek is a single use test for the microscopic counting of leukocytes and platelets in whole blood and body fluids

Procedure

Whole blood (20 μ L) is added to the BMP LeukoChek reservoir from either a finger stick and/or from a well mixed anticoagulated tube of whole blood. The capillary tube provided by BMP fills via capillary action to exactly 20 μ L of whole blood. Each reservoir contains 1.98 mL of a 1% buffered ammonium oxalate solution. This provides for a ratio of 1 to 100, sample to total volume.

1. Puncture the cap diaphragm with the protective shield on the pipette assembly.
2. Remove the shield and fill the tube with whole blood from either a finger stick and/or from a tube of whole blood. Be sure that the capillary tube fills completely. When the blood reaches the end of the capillary tube it will stop automatically, filling the tube with 20 μ L of whole blood. Gently wipe excess blood from the outside of the capillary tube.
3. Squeeze reservoir slightly to expel a volume of air. Maintain pressure on the reservoir while inserting the pipette with whole blood into the reservoir. Be sure to simultaneously cover the top opening of the capillary tube holder.
4. Release pressure from the reservoir and then from the capillary tube opening. This will cause the whole blood to be drawn into the diluent.
5. Gently squeeze the reservoir to rinse the capillary tube taking care not to expel any mixture of diluent and whole blood through the top of the opening of the inserted capillary tube holder. Place finger over the top of the opening of the capillary tube holder and gently invert the reservoir several times to ensure proper mixing.
6. Wait 10 minutes before attempting to count leukocytes and platelets.
7. Remove pipette assembly, invert and seat the assembly in a reverse position into the top of the cap. This changes the pipette assembly from a collection device to a dropper.
8. Discard the first 3 or 4 drops and then expel the reservoir solution into a hemocytometer with a Neubauer grid for the counting of leukocytes and platelets.
9. A leukocyte count is performed under 100x total magnification. Leukocytes are counted in all nine large squares of the counting chamber. Add 10% to the total number of cells counted and then multiply this value by 100 to get the total leukocyte count. Please follow your current calculation method.
 - For example, if 60 cells are counted the total count would be $60 + 6 \times 100$ which would represent a total count of 6,600 leukocytes per cubic mm.
10. A platelet count is performed under 400x total magnification; platelets are counted in all 25 squares in the large centerpiece. Multiply platelets by 1000 to get a total platelet count. Perform all counts within three hours.

