Standard Operation Procedure

WHOLE BLOOD DNA EXTRACTION USING ZYBIO EXM-3000

Items required by the user but not provided in the kit:

Equipment:

1. Zybio EXM-3000
2. Heat block

Recommended Sample volume for starting:

A starting sample volume of 200 µL of whole blood is suggested for blood DNA extraction. Whole blood samples collected in K2-EDTA and K3-EDTA vacutainers, stored at 4°C, frozen and at RT can be used for whole blood genomic DNA extraction.

DNA extraction from whole blood- Plate description

Fill the buffers in the appropriate wells according to the volumes specified in the below-mentioned table:

Buffer	**Volume of buffer per well**	**Well Position on "U bottom" deep well plate**
Lysis-Binding Buffer (LBB)	500 µL	Column 1 and 7
CamBeads (CB)	20 µL	Column 1 and 7
Wash Buffer I (WB1)	500 µL	Column 3 and 9
Wash Buffer II (WB2)	300 µL	Column 4 and 10
Elution Buffer (EB)	100 µL	Column 6 and 12

Protocol:

1. Pre-digestion of the blood sample
   a) Add 30 µL of Proteinase K solution to 1.5 mL microcentrifuge tubes. Add 200 µL of whole blood sample to the tubes and add 200 µL of Buffer BL to the blood samples.
   b) Vortex the tubes containing the samples for 40 secs and incubate it at 70°C in a heat block for 10 - 15 minutes.
   c) Transfer the pre-digested blood samples to wells of column 1 and column 7 (containing the lysis-binding buffer) along with 20ul of cambeads solution.

   (**Note**: Transfer the blood sample gently from the microcentrifuge tube to the wells of column 1 and column 7 (containing the lysis-binding buffer) to ensure proper transfer of the pre-treated blood sample into the deep-well plate).

2. Place the filled Zybio plates onto the Zybio platform and fit the magnetic-sleeves properly. Select protocol **Zybio-FFPE-B-200** and run the protocol.

3. After the protocol run, collect the eluted DNA in a DNAse, RNase- free microcentrifuge tubes and store the eluted DNA in -20°C.