

# 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

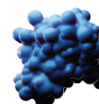
### Recommended Sample volume for starting:

A starting sample volume of 200  $\mu$ L 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 $\mu$ L	Column 1 and 7
CamBeads (CB)	20 $\mu$ L	Column 1 and 7
Wash Buffer I (WB1)	500 $\mu$ L	Column 3 and 9
Wash Buffer II (WB2)	300 $\mu$ L	Column 4 and 10
Elution Buffer (EB)	100 $\mu$ L	Column 6 and 12



## Protocol:

1. Pre-digestion of the blood sample
  - a) Add 30  $\mu$ L of Proteinase K solution to 1.5 mL microcentrifuge tubes. Add 200  $\mu$ L of whole blood sample to the tubes and add 200  $\mu$ L 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.

