

Joint Project Management Office Medical Countermeasure Systems

Ebola Zaire (EZ1) Sample Collection Procedure

The Ebola Zaire (EZ1) real-time reverse transcription (rRT) polymerase chain reaction (PCR) (TaqMan®) assay is intended for the qualitative detection of Ebla Zaire RNA from whole blood (EDTA anticoagulant) treated with Trizol (Life Technologies TRIzol® LS reagent or Sigma TRI Reagent® LS) and plasma (EDTA anticoagulant) treated with Trizol. The EZ1 assay is for use only under Emergency Use Authorization (EUA) in specified populations by specified laboratories and clinical laboratory personnel who have been trained on authorized instruments.

Specimens should be collected using appropriate infection control precautions for Ebola or other hemorrhagic fever viruses and according to the manufacturer's instructions for the specimen collection device. Shipping should be performed according to the policies of the shipping performer, customs regulations, and the requirements of the receiving laboratory.

Safety References:

http://www.who.int/csr/bioriskreduction/interim recommendations filovirus.pdfua=1 http://whqlibdoc.who.int/publications/2010/9789241599221 eng.pdf?ua=1 http://www.cdc.gov/vhf/abroad/pdf/african-healthcare-setting-vhf.pdf

Trizol Inactivation Procedure

Note: Protocol should be performed in a Class II or higher BioSafety Cabinet (BSC) or Glove Box

Blood and plasma samples potentially infected with Ebola virus (all species and strains) can be inactivated (i.e., rendered non-infectious) by the addition of 3 parts Trizol with 1 part whole blood or plasma following the method below:

1. Procedure

- a. Add 0.75mL of Trizol LS to a microcentrifuge tube.
- b. Within a BSC, and using appropriate personal protective equipment, add 0.25mL of whole blood or plasma sample to the microcentrifuge tube containing Trizol LS.
- c. Vortex the tube for at least 5 seconds and incubate at ambient temperature for 5 minutes +/-30 seconds.
- d. Once the procedure is complete, samples can be handled following appropriate safety precautions defined by the testing laboratory.

IMPORTANT: While treatment with Trizol has been shown to be an effective method to disrupt viruses and to stabilize the target nucleic acid, specimens should still be handled as if they were infectious and present a potential safety hazard.