

GenTegraRNA-NEO™ for RNA Microsampling

RNA-Based Studies with Mitra Devices

The GenTegraRNA-NEO solution is an Active Chemical Protection™ (ACP) technology by GenTegra distributed by Trajan for use on Mitra® devices based on VAMS® technology. You use GenTegraRNA-NEO to pre-treat the Mitra devices and advance the way you collect, protect, and process your RNA samples. The GenTegraRNA-NEO comes as a dried matrix that you easily rehydrate in the lab. The rehydrated solution can be loaded onto and dried on the VAMS tips of Mitra devices. When a sample is collected onto the VAMS tips GenTegraRNA-NEO blocks naturally occurring nucleases and protects against environmental stresses that the sample may experience. Following extraction, after up to seven days, the RNA will be of the highest quality with RIN values >6.

Advance Your RNA Research with Industry-Leading Volumetric Absorptive Microsampling Device

The Mitra® microsampling device based on VAMS, paired with GenTegraRNA-NEO, offers cutting-edge RNA stabilization technology over a range of temperatures and humidities with no cold-chain handling required. Mitra VAMS tips treated with GenTegraRNA-NEO are compatible with finger-stick blood collection and can be used by virtually anyone, anywhere. This advances your RNA research to the next level with greater access to diverse, decentralized populations, reduced need for trained clinical staff, and reduced specimen handling costs.



Suitable Research Application Areas



Transcriptomics /
Biomarker
Discovery



Pharmacogenomics



RNA Therapy
Development



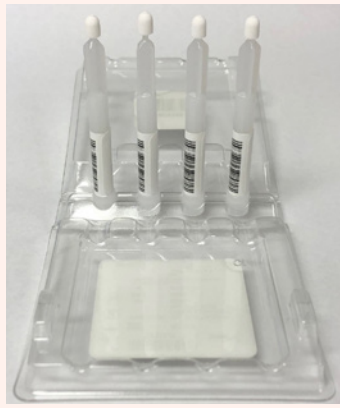
Clinical Trial /
Research
Screening



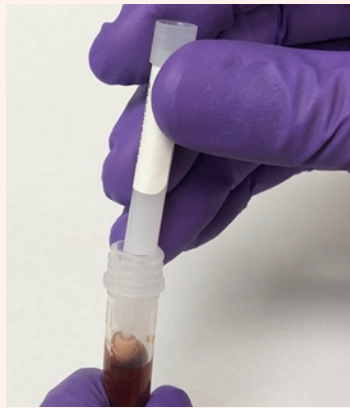
Genetic
Determinants
of Disease



Disease
Pathogenesis



Starting Mitra® VAMS tips



Apply 30uL of GenTegraRNA-NEO



Dry tips 24hr at room temperature

Simplified Workflow for Applying and Using GenTegraRNA-NEO with Mitra Devices

Apply 30µL GenTegra RNA-NEO solution to each VAMS tip



Dry tips at ambient temperature before sample collection



Collect blood sample and dry tip to stabilize the RNA



Extract RNA from the VAMS tip of the Mitra device

YIELD: ng of RNA obtained from Mitra VAMS tips

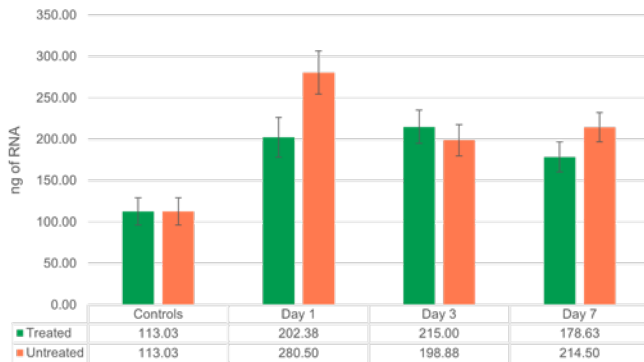


Figure 1: ng of RNA obtained from RNA extraction of 1 Mitra tip (30uL of dried whole blood) and eluted in 50uL of molecular grade water. Samples were extracted on days 1, 3 and 7, controls are WB samples that were extracted using the same method immediately after blood collection (GenTegra Data).

QUALITY: RNA integrity obtained from Mitra VAMS tips

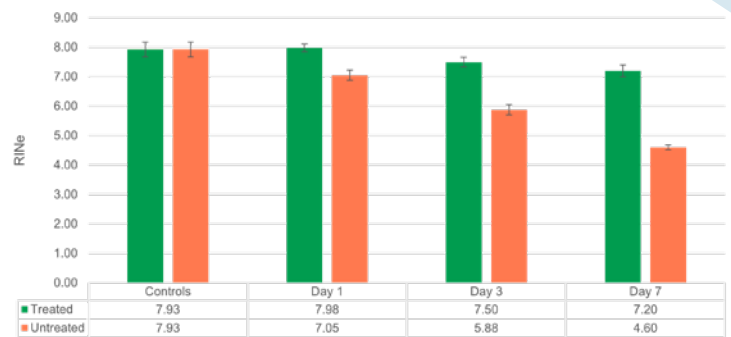


Figure 2: RINe results obtained from Tape Station 4200 after analyzing RNA extracted from 30uL of blood from 1 Mitra tip per sample, samples were extracted on days 1, 3 and 7, Controls are liquid WB samples extracted with the same method as the tips, immediately after the blood was collected. (GenTegra Data).

GTRNEO-32 Specifications

Format	Dried matrix in 2mL vial
Shelf-Life as Dried Matrix	3-years at room temperature
Rehydration Volume	1,100µL of molecular biology grade water
Shelf-Life as Rehydrated Solution	6 months at 4°C rehydrated in water
Solution Volume Absorbed per VAMS Tip	30µL; Dried on tip before use
Blood Sample Collection Volume per treated VAMS tip	30µL (RSD < 5%)
RNA Stabilization in Whole Blood	7 days – dried whole blood on VAMS tip at room temperature
RNA Yield per VAMS tip	Dependent upon sample & RNA extraction method, but typically approximately 150ng per 30uL VAMS tip, using fresh whole blood
RNA Quality	Typical RIN Scores > 6 (@ 7 days, room temperature, dry conditions)

GenTegraRNA-NEO is for Research Use Only.

GenTegra

Toll free: 844.540.4000 • Tel: 925.461.3010 • Email: sales@gentegra.com • www.GenTegra.com

© 2024 GenTegra LLC. All rights reserved. GenTegra, GenTegraRNA-NEO, and Active Chemical Protection are trademarks and/or registered trademarks of GenTegra LLC. Mitra® devices are CE-IVD (IVDR) devices intended as specimen collectors and for the storage and transport of dried blood. They are available as registered IVD devices in the European Union and United Kingdom, Australia, Brazil, China, and Canada, as well as multiple Health Ministries worldwide. In the USA, Mitra devices are supplied as a research use only (RUO) product to assist in method development, other research-related and non-diagnostic activities. Mitra has not been validated for use with any diagnostic testing. Mitra® & VAMS® are registered trademarks owned by Trajan Scientific Australia Pty Ltd.