Paretor
155 Arlington St
Watertown, MA 02478

ETAERION™

Mineral Nanoparticle Colloid

For research use only. Not for use in Diagnostic nor Therapeutic Procedures.

Size:	40-45nm
PDI:	<0.3
Charge:	-27mV
Polymer:	Dextran
Surface Passivation:	Zwitterionic
Magnetic Saturation:	< 1emu/g

ETAERION™ is a magnesium-integrated mineral nanoparticle colloid that stabilizes cellular systems under stress. Our 45nm iron-oxide particles are non-magnetic and contain citrate, cholate, magnesium, dextran and ferric iron (Fe^{3}+). ETAERION™ particles are designed to be used in research and commercial settings to improve stability, viability, and longevity of cell lines and organoid systems under stress. Particles also reduce media acidification and increase recoverability of cells following freezing.

Particles Received: ETAERION™ Derived from **PA-002**
Concentration: **1.0×10^{11} particles/mL**
Total volume: **~1.0 mL** (4 × ~250 µL aliquots)

Storage Buffer :
0.5 mM Sodium Gluconate
2 mM Sodium Citrate
5% Trehalose
pH neutral, isotonic, RNase-free

Surface Charge:
Control: **–27 mV**

Storage & Stability:
Freeze–thaw stable
–20 °C: validated to **9 months**
4 °C: validated to **4 weeks**
Store **dark + dry** regardless of temperature

Thaw ON TOP of ice (not submerged) to prevent uncontrolled warming
Inspect for particulates (should be none). If present, discard vial and notify.

ETAERION™ is a non-crystalline iron oxide nanoparticle –based system that modulates the cell's physicochemical environment.

Across multiple experimental conditions, ETAERION demonstrated consistent effects: improved viability and productivity in stressed, recoverable systems and neutral or negative effects on severely stressed systems.

Our data support a model in which ETAERION operates within a defined window of biological responsiveness, enabling more consistent system performance under stress.

Not approved for clinical use. User responsible for safety, compliance.