

## **Evaluation of a Novel Tissue Transport Media for Muscle Biopsy Specimens**

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**Study objective:** Muscle biopsy plays an integral role in the diagnosis and management of neuromuscular diseases. Routine histochemical stains performed on frozen muscle biopsy specimens are subject to artifacts during the procedure and/or transport that may hinder interpretation.

Our goal is to evaluate whether *Aedesta™ Preservation Medium*, a high oxygen capacity transport solution preserves enzymatic activity in fresh muscle biopsies.

**Materials and methods:** Using pig muscle, we processed 9 fresh and a single formalin fixed biopsy specimen. A panel of 8 enzyme histochemical stains and one immunohistochemical stain was performed on all fresh biopsy specimens; an additional dystrophy panel was performed on 2 cases.

**Summary of the result:** We found that *Aedesta™ Preservation Medium* preserved enzymatic activity and immunoreactivity in fresh muscle biopsy tissues for up to 144 hours (5 days) at room temperature, and compared to the standard frozen biopsy specimens contained fewer artifacts. Further evaluation of this media on human muscle biopsy specimens is recommended.

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