

**SAPE Conjugate
Performance and Stability
From Moss Inc.**

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Introduction

- Moss Inc. streptavidin-R-phycoerythrin (SAPE) conjugates excel in diagnostic, molecular and cellular fluorescence detection assays based on biotin labeling
- Moss SAPE conjugates are provided in liquid stable, ready to use form and are suitable for use in various Luminex assays, multiplexing platforms, and microarrays
- Moss SAPE conjugation technology produces conjugates that result in exceptional signal-to-noise ratios, high titers, and the conjugates can also be customized to maximize performance for specific platform applications

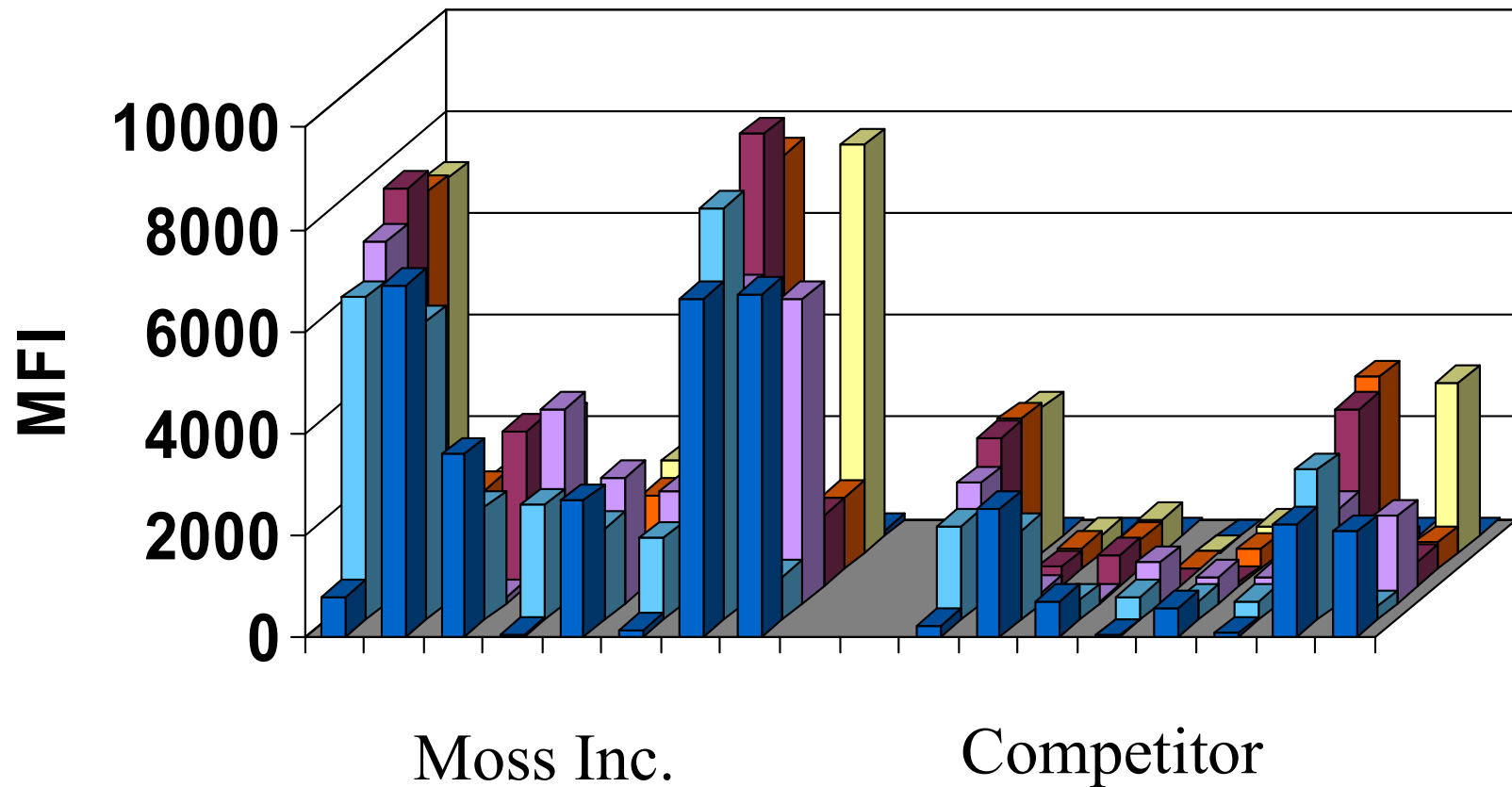
SAPE FRET Test Principle

- The FRET test is a homogeneous assay for testing PE conjugates
- SAPE serves as the fluorescence resonance energy transfer (FRET) donor conjugate in the test
- Biotinylated-allophycocyanin (BAPC) is the energy transfer acceptor conjugate
- Conjugates and reagents are mixed together in microtiter plate wells, and then the fluorescence intensity is measured after 15 minutes

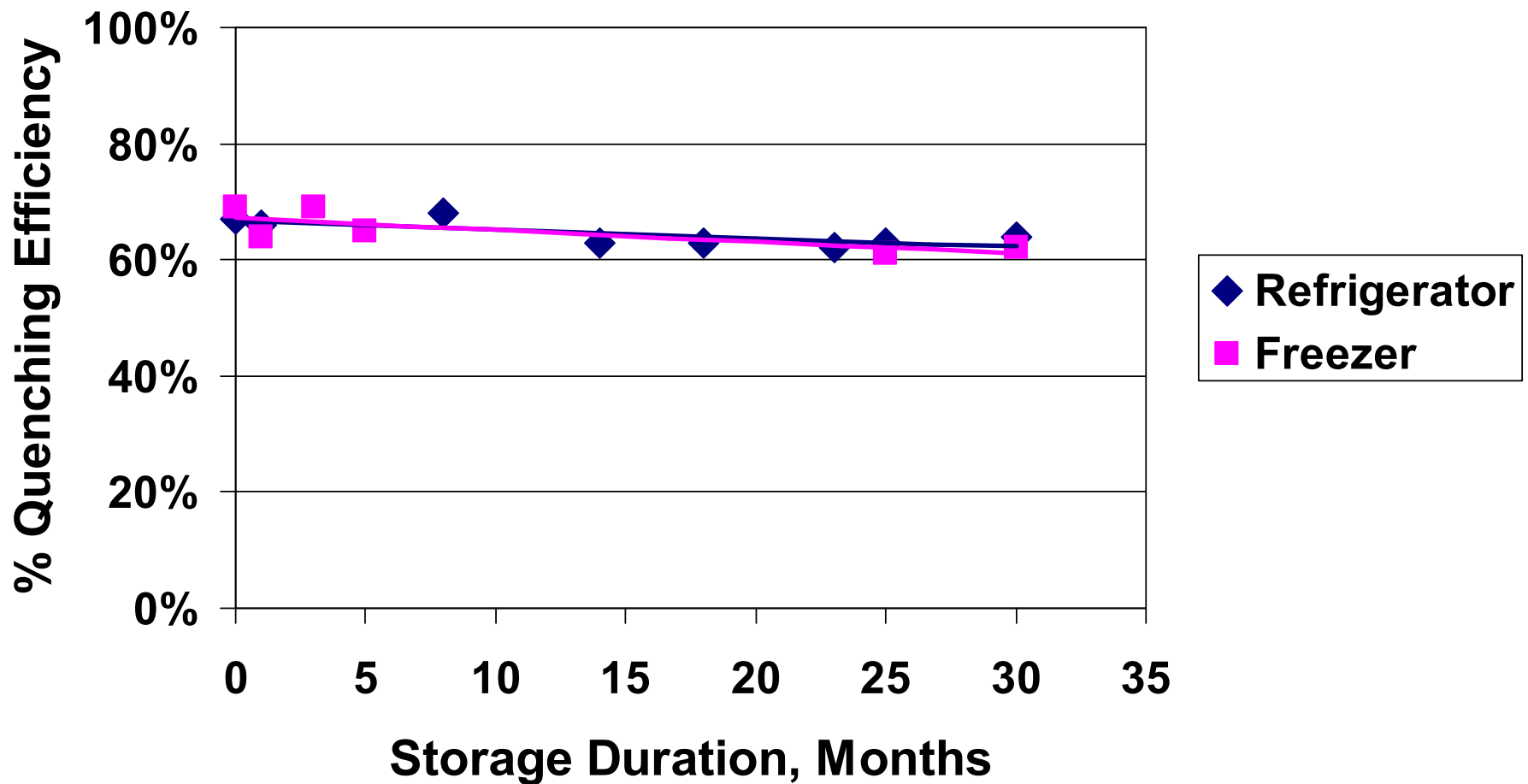
Significance of FRET Results

- Bound SAPE donor fluorescence, F , is divided by the fluorescence of the donor alone, F_0
- No binding results in no energy transfer and $F/F_0 = 1.00$
- A binding interaction between donor and acceptor results in fluorescence resonance energy transfer and $F/F_0 < 1.00$
- The smaller the F/F_0 value, the stronger the binding interaction

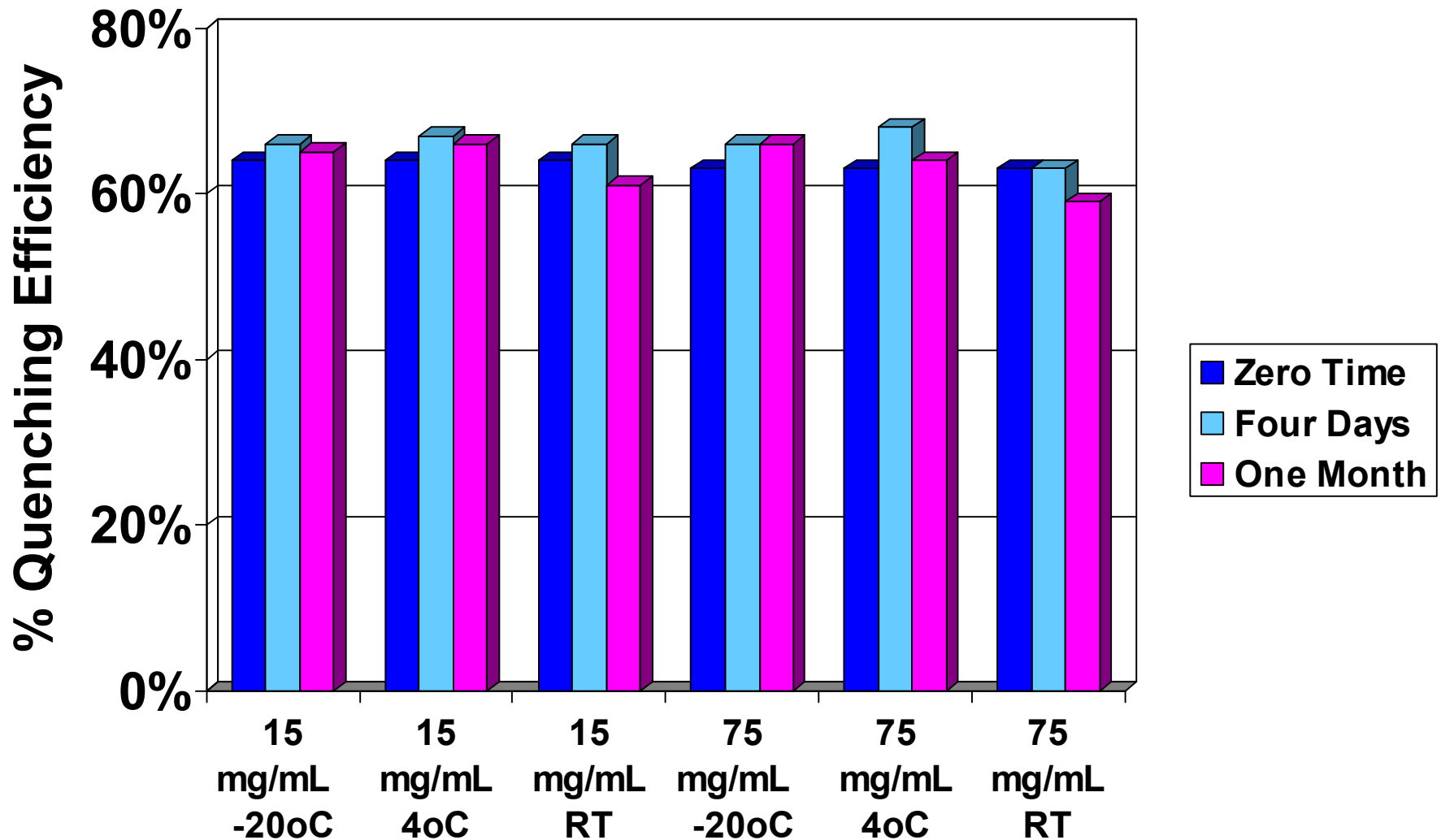
Moss Inc. SAPE Has More Signal Intensity to Detect Bi-Allelic Biotinylated Target Sequences in a Luminex Thrombophilia Assay



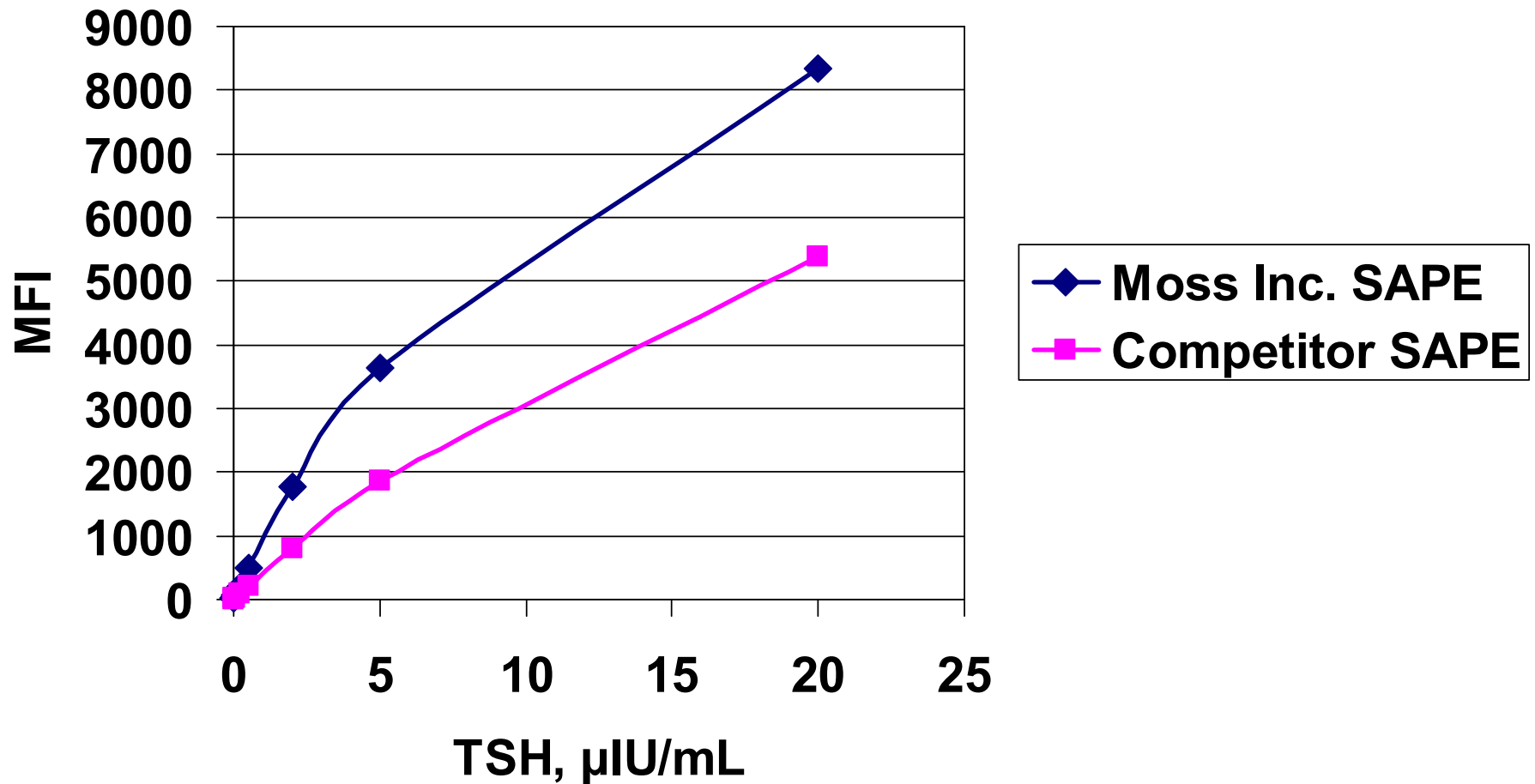
SAPE with 50% Glycerol and 15 mg/mL BSA 30 Months Refrigerator and Freezer Stability



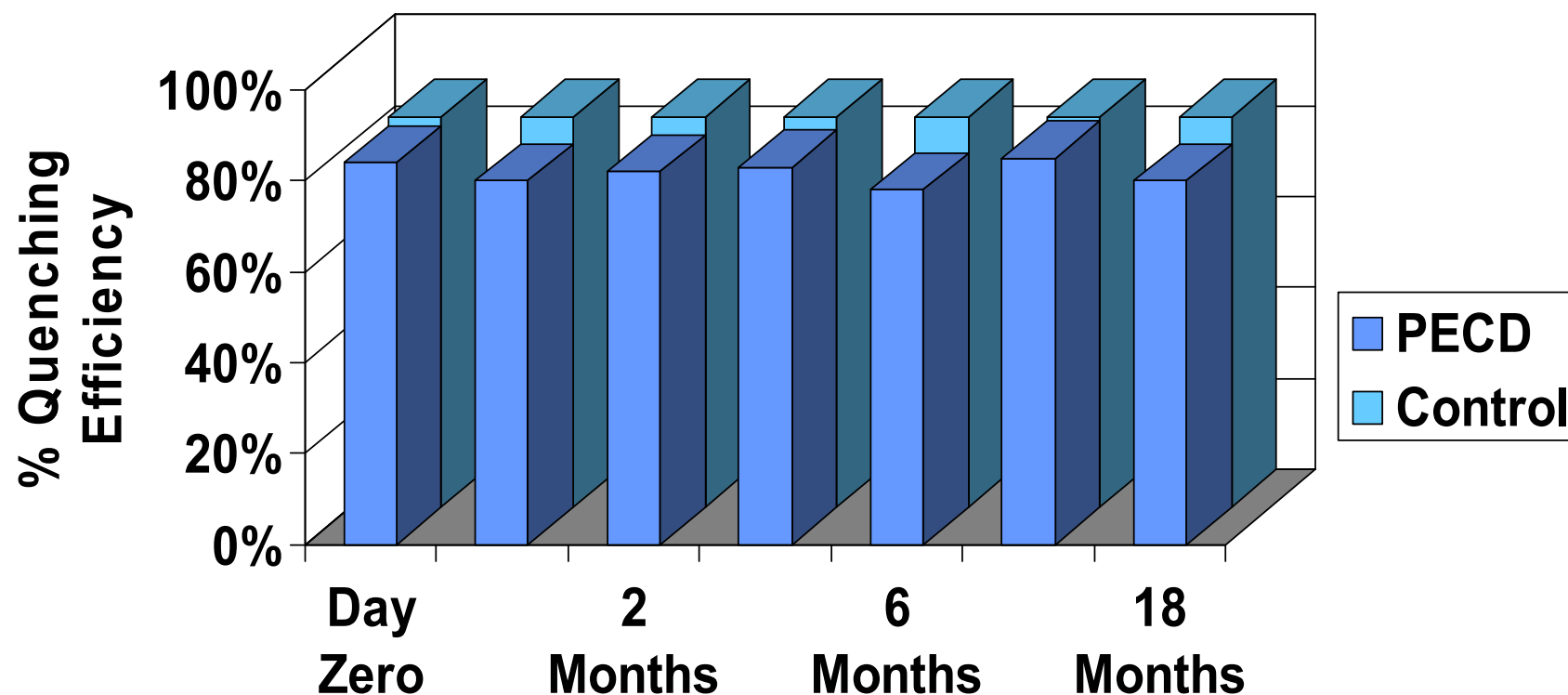
SAPE with 50% Glycerol and 15 or 75 mg/mL BSA Three Temperature Storage Stability



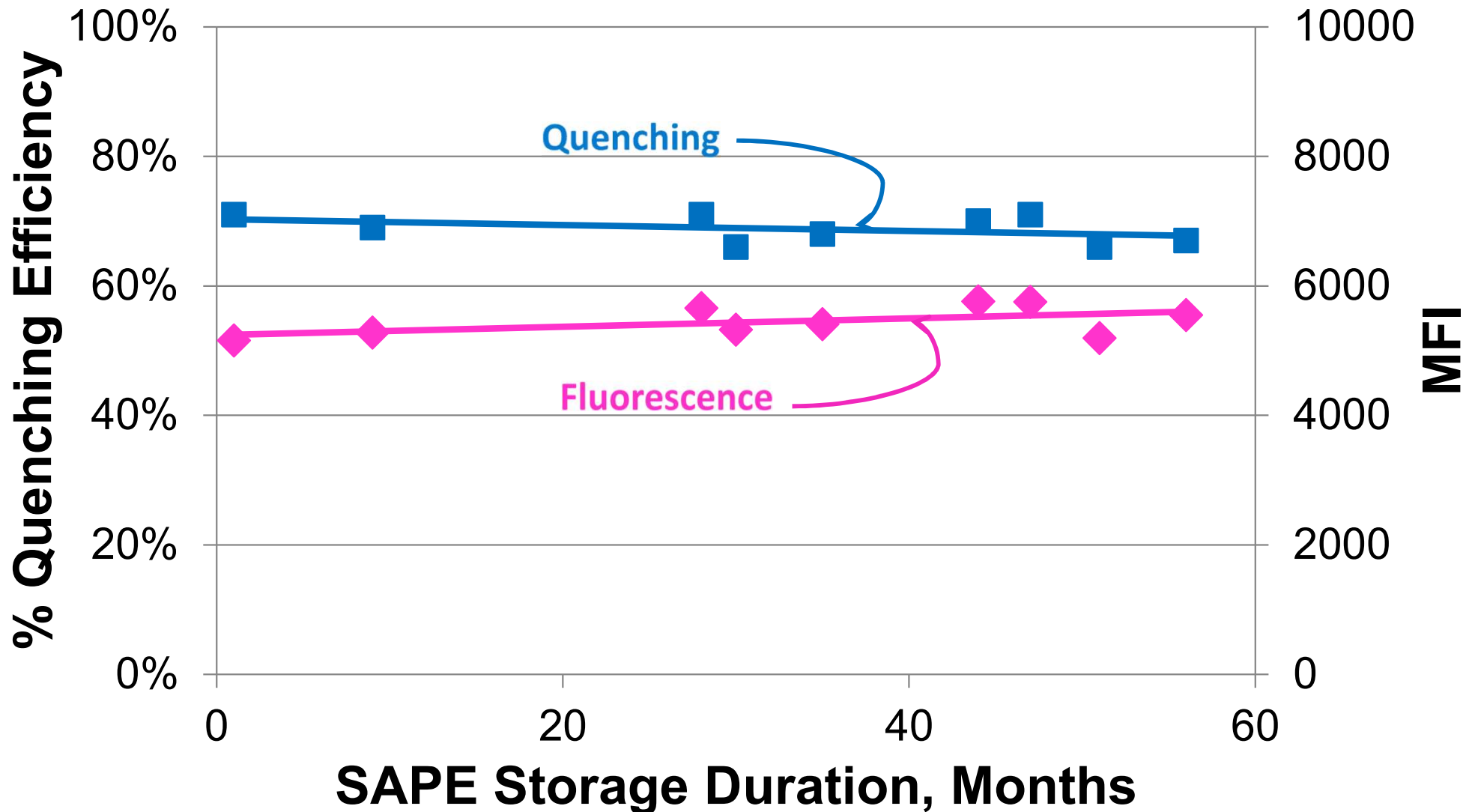
Moss Inc. SAPE Gives Greater Signal Intensity Than a Competitor in a Luminex TSH Assay



SAPE 10 $\mu\text{g}/\text{mL}$ Refrigerated Stability in PECD Conjugate Stabilizing Diluent by FRET Quenching Assay

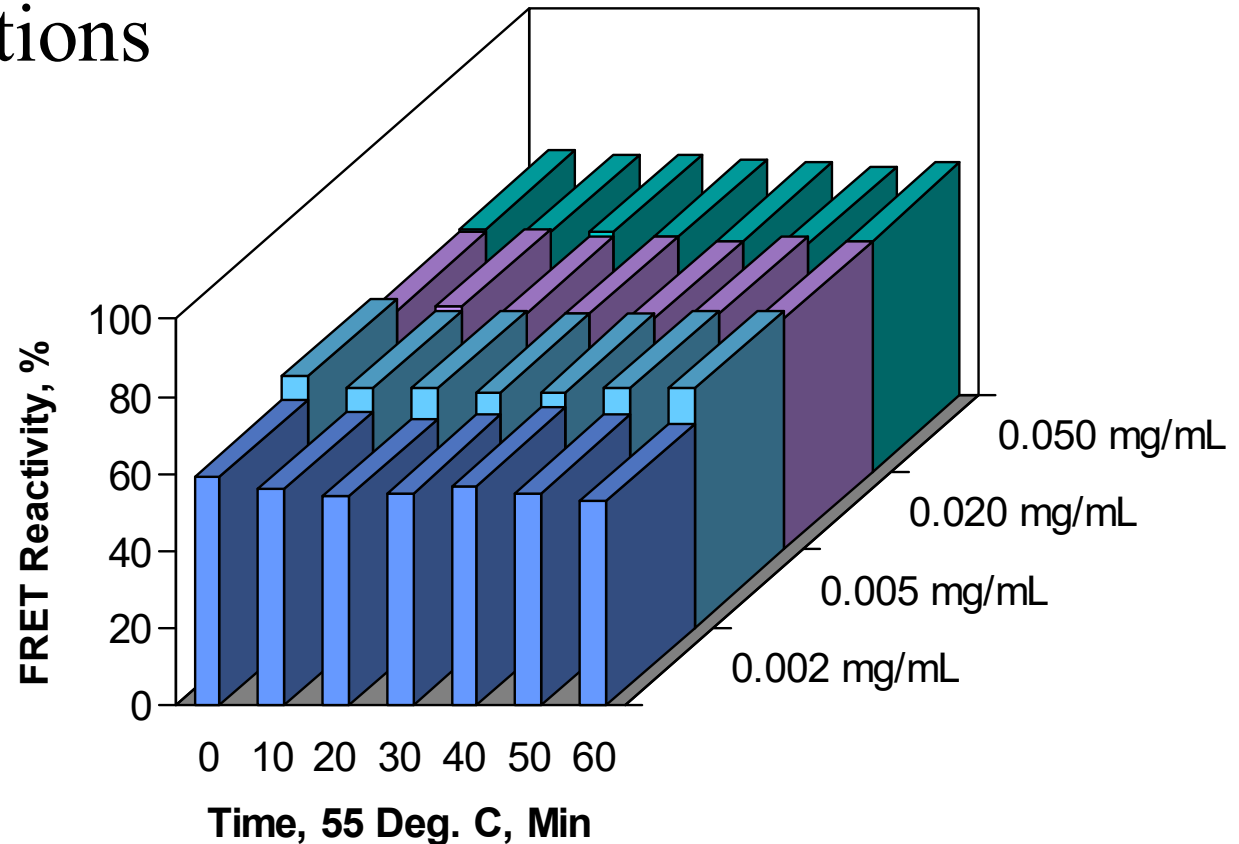


SAPE Has a Long Shelflife on Refrigerated Storage

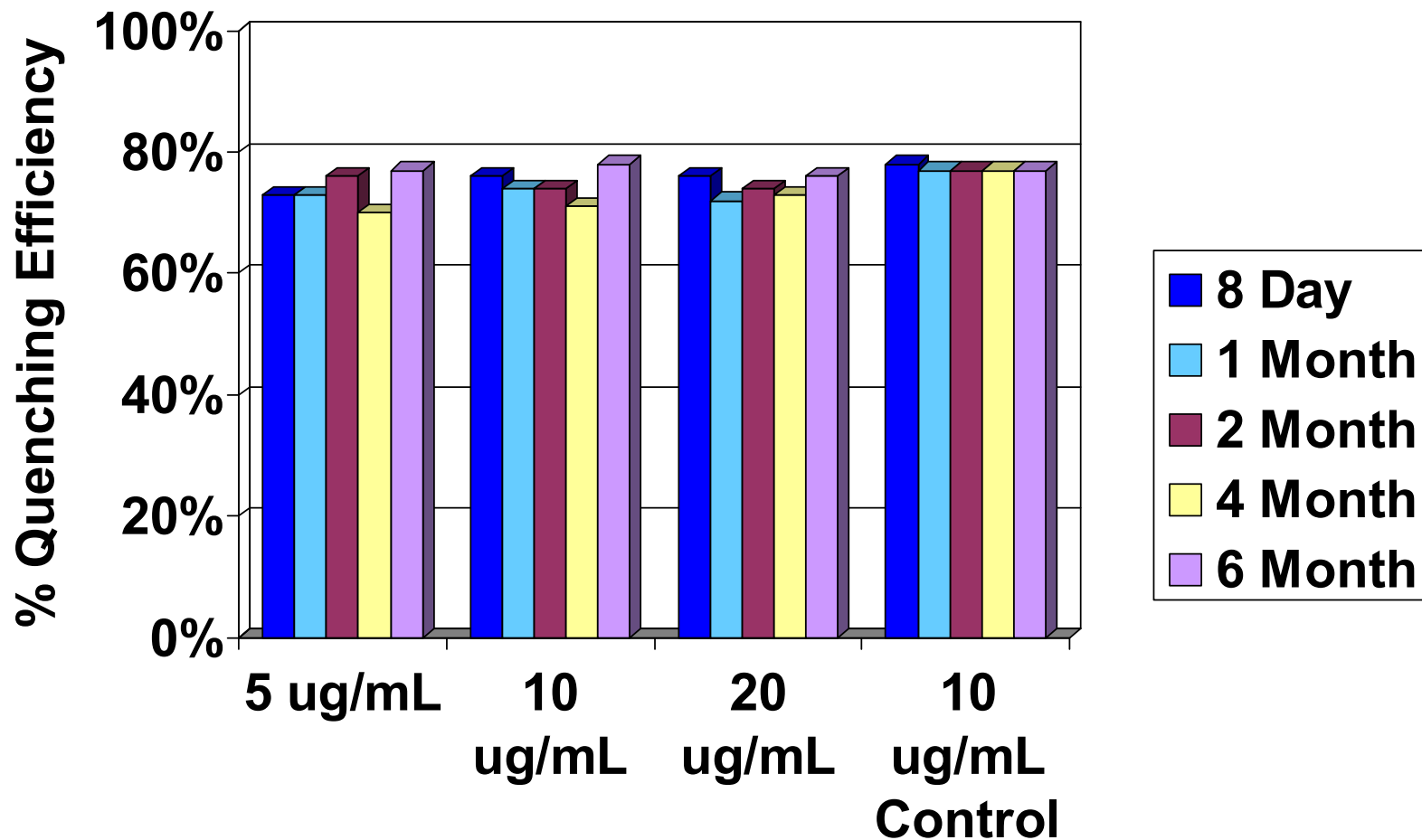


SAPE High Temperature Stability

- SAPE signal is thermostable at 55°C for PCR applications



SAPE Ambient Temperature Storage Stability of Various Dilutions in PECD Conjugate Stabilizing Diluent by FRET Quenching Assay



Moss Inc. SAPE Conjugates

- Superior performance
- Excellent liquid stability provides a long shelflife
- Ready to use from the bottle
- Available in milligram to gram amounts
- Custom made conjugates – please inquire