

PE-IgG Conjugates Performance and Stability from Moss Inc.

Alvydas Ozinskas and Kimberly Blotzer

Moss Inc. • PO Box 189 • Pasadena, MD 21123 • www.MossSubstrates.com

Introduction

- Moss Inc. R-phycoerythrin-antibody (PE-IgG) conjugates produce strong fluorescence signals at high titers with exceptional signal-to-noise ratios for immunodiagnostic assays on the Luminex platform.
- The PE-IgG conjugates are produced in Homogeneous, Liquid Stable form in batches ranging from 10 mg to more than 1,000 mg, and they can be customized for maximum performance.
- Results are presented that highlight assay performance and stability of goat anti-human IgG-PE conjugates, both whole antibody and F(ab')₂ fragments, including results for other specificities.
- Ongoing stability results are shown for PE-IgG conjugates in 50% glycerol that allow storage in the freezer.

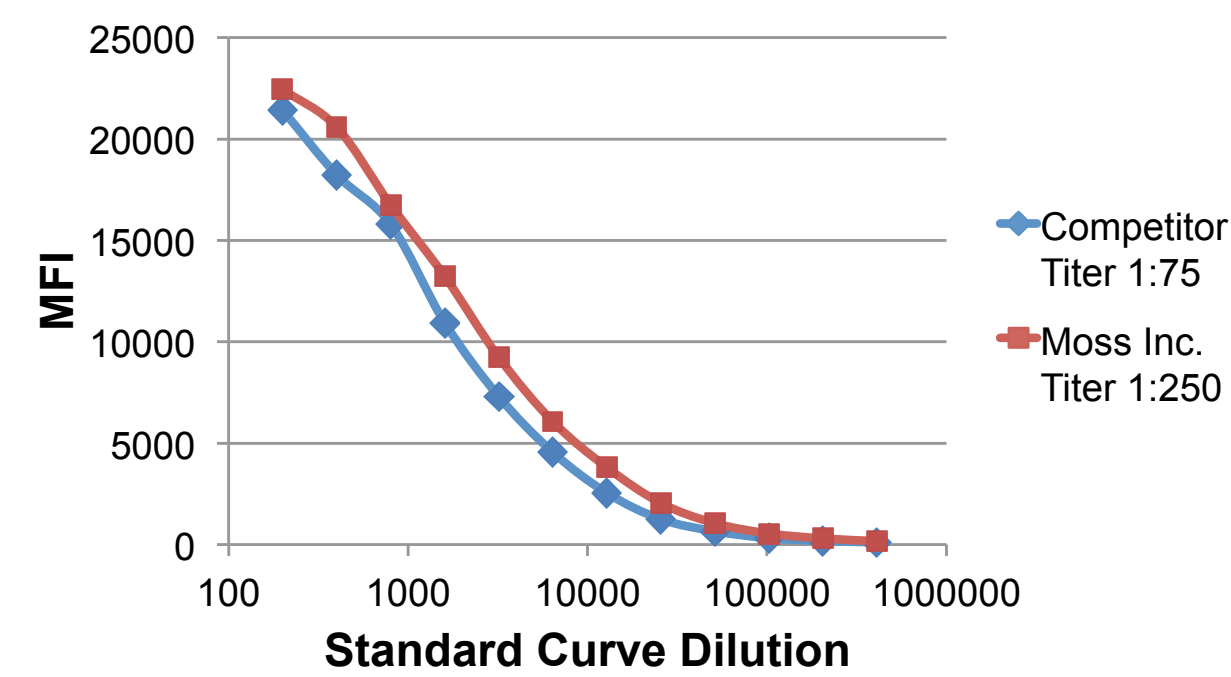
PE-IgG FRET Test Principle

- The FRET test is a homogeneous assay for testing PE conjugates
- PE-IgG serves as the fluorescence resonance energy transfer (FRET) donor conjugate in the test
- Cy-5-labeled target antigen 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, quenched PE-IgG donor fluorescence, F, is divided by the fluorescence of the donor alone, F₀
- No binding results in no energy transfer and F/F₀ = 1.00
- A binding interaction between donor and acceptor results in fluorescence resonance energy transfer and F/F₀ < 1.00
- The smaller the F/F₀ value, the stronger the binding interaction

Serology Testing - Moss PE- α -hlgG-F(ab')₂ Provides More Tests Per Milligram

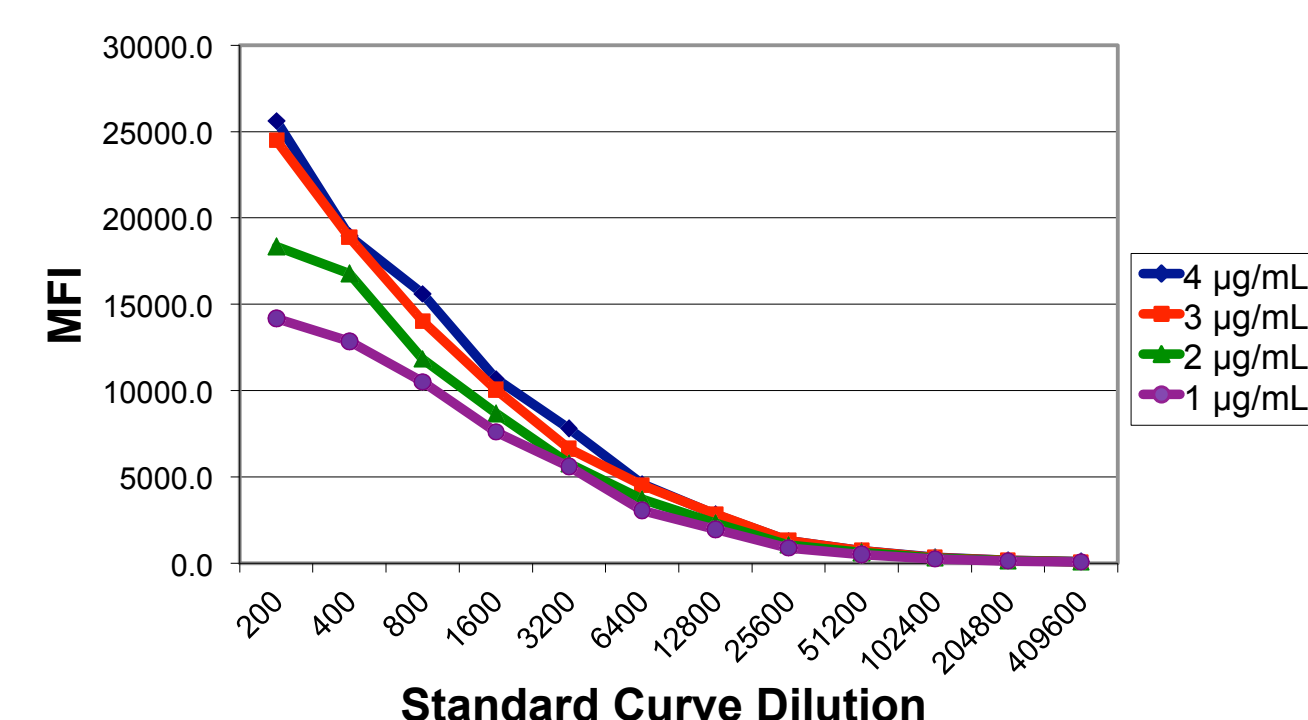


Analysis of 38 Serum Samples in Each of Three Serology Assays

Analysis and Specifications	Serology A	Serology B	Serology C
	Moss Titer 1:250 Competitor 1:75	Moss Titer 1:250 Competitor 1:75	Moss Titer 1:250 Competitor 1:75
Agreement > 80%	100	100	100
GMT ratios 0.86-1.16	0.93	0.98	0.95
Number of samples	38	38	38

- Conclusions:
 - Good superposition of standard curves with Moss dilution of 1:250 and competitor dilution of 1:75
 - Good batch-to-batch reproducibility of results with Moss product
 - Moss PE- α -hlgGF(ab')₂ can be used at high titers, thus lower cost

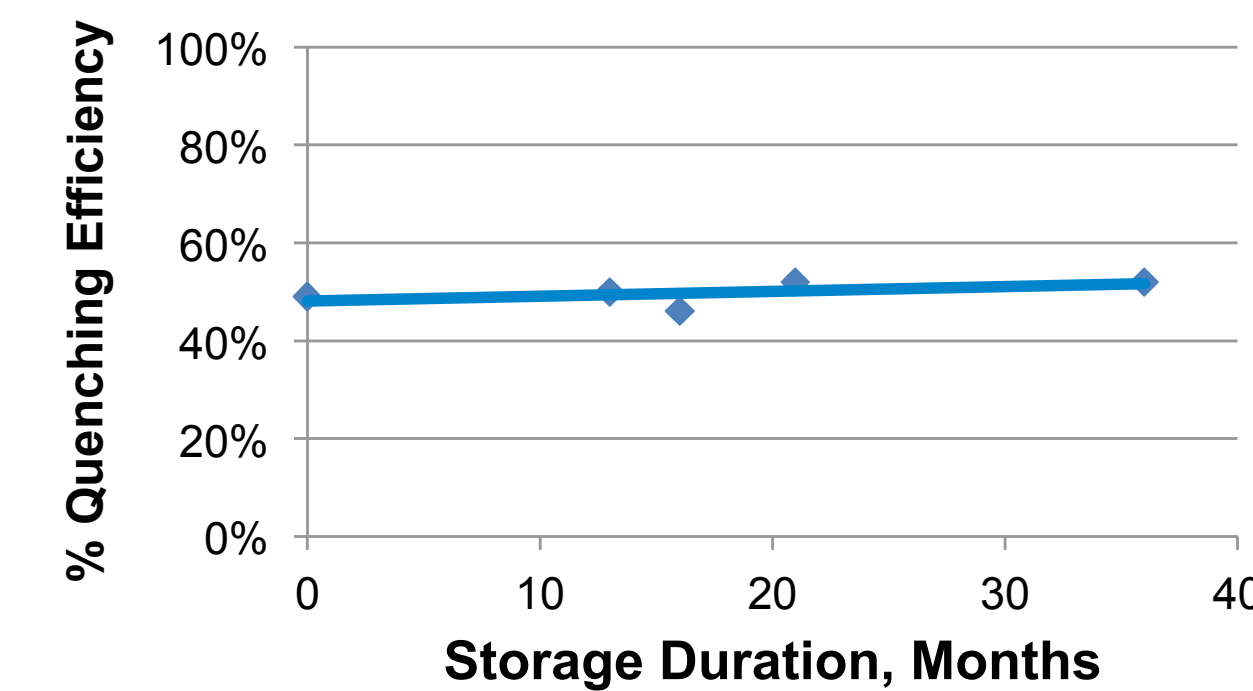
Serology - Moss PE- α -hlgG-F(ab')₂ Delivers Strong MFI with Low Background at High Titers



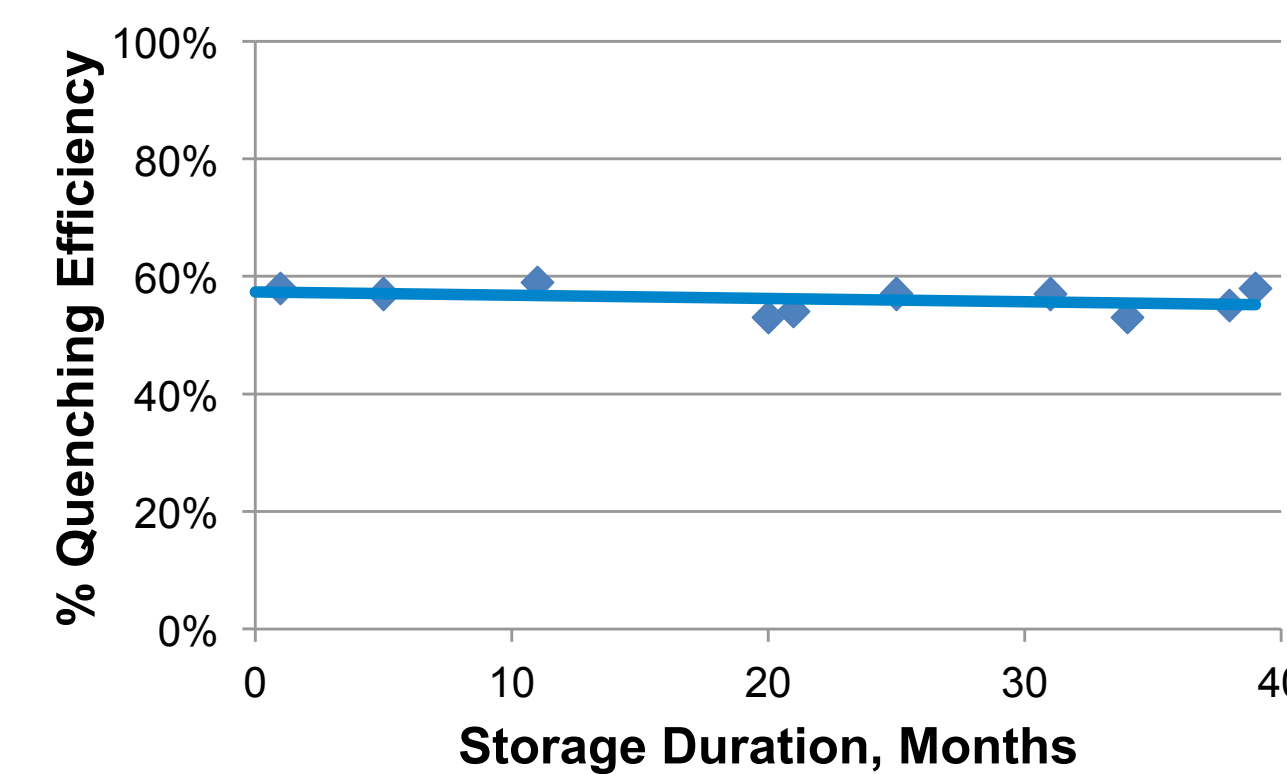
Whole Antibody PE- α -hlgG is Comparable to PE- α -hlgG-F(ab')₂ in Syphilis Assays

	T. pallidum		RPR	
	PE- α -hlgG	PE- α -hF(ab') ₂	PE- α -hlgG	PE- α -hF(ab') ₂
Sample 1	13538	14769	13396	13048
Sample 2	10170	10754	16542	15455
Sample 3	12884	13846	10166	11104
Blank	20	17	23	20
Standard 1	28	25	1022	879
Standard 2	128	87	1541	1788
Standard 3	225	188	3441	3054
Standard 4	4162	4274	4421	4275

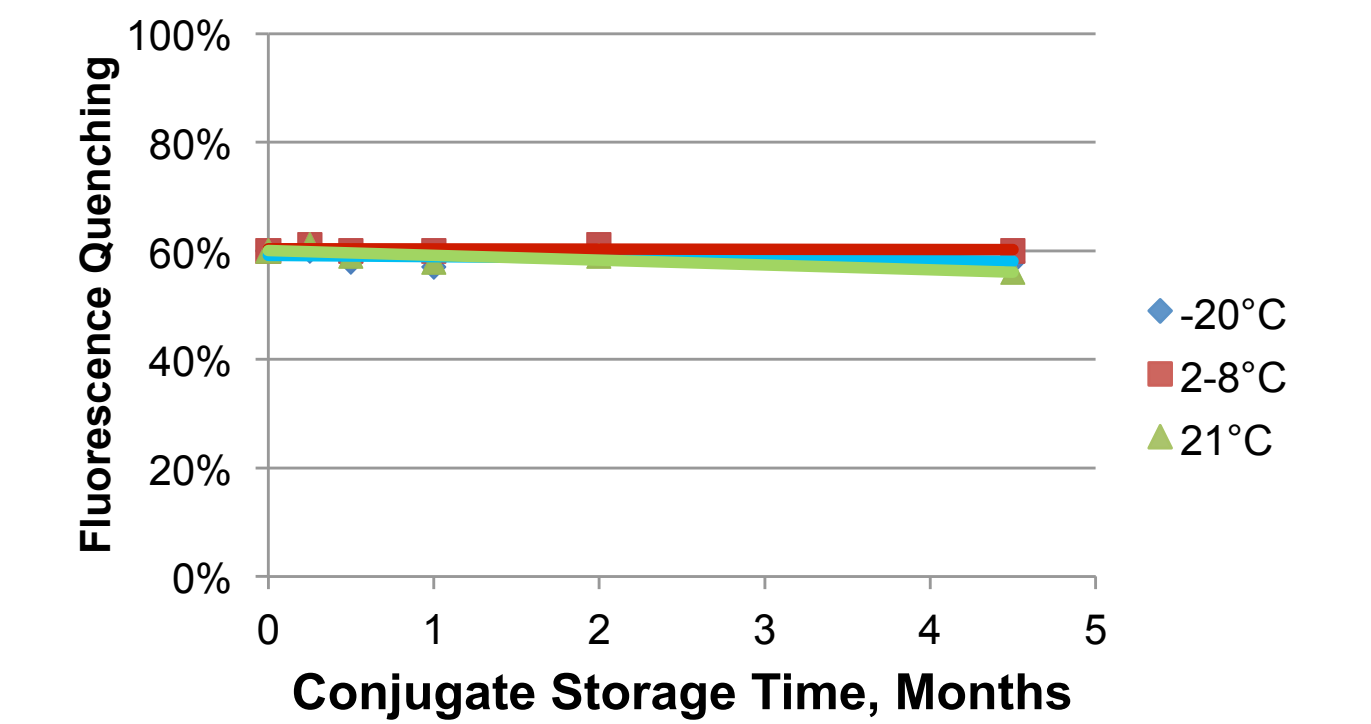
PE- α -hlgG-F(ab')₂ Refrigerated 36 Month Storage Stability



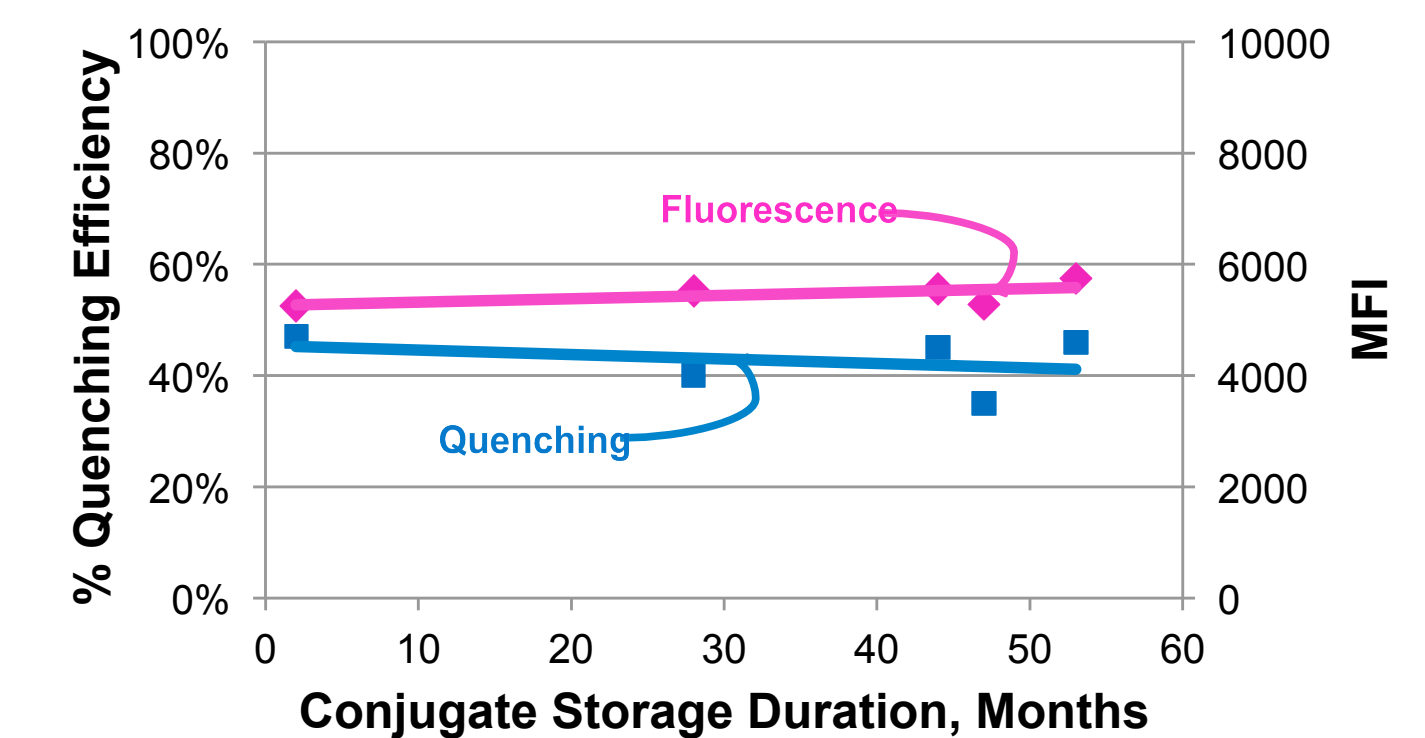
PE- α -hlgG Refrigerated 36 Month Storage Stability



Freezer-Stable PE- α -hlgG-F(ab')₂ 50% Glycerol - Ongoing Stability Studies



PE- α -hlgM Refrigerated 48 Month Storage Stability



Moss Inc. R-PE-IgG Conjugates

- Superior performance
- Excellent liquid stability provides a long shelflife
- Ready to use
- Available in homogeneous, milligram to gram amounts
- Anti-human specificities include IgG, IgM, IgA, and IgE
- Anti-animal specificities include rabbit, goat, mouse, donkey and swine
- Custom made conjugates – please inquire