LANCE™ cAMP – Increased Sensitivity, Stability and Overall Assay Performance with $G_{\alpha_S}$ and $G_{\alpha_i}$ Coupled Receptors in a Miniaturized 1536-Well Format.

Patricia Kasila, Harry Harney
PerkinElmer Life and Analytical Sciences, Boston, MA 02118

1. Abstract

2. Schematic Representation of LANCE™ cAMP Assay

3. Materials

4. Methods

5. Results: $G_{\alpha_i}$ Adrenergic Receptor

6. Results: $G_{\alpha_S}$ Adrenergic Receptor

7. Results: $G_{\alpha_i}$ Adrenergic Receptor

8. Results: $G_{\alpha_S}$ Adrenergic Receptor

9. Results: $G_{\alpha_i}$ Adrenergic Receptor

10. Results: HTS

11. Detection Instruments

12. Conclusion

- Excellent performance in a 1536-well format
- Excellent performance of both $G_{\alpha_S}$ and $G_{\alpha_i}$ coupled receptors
- Correct pharmacology as compared to literature values
- Dramatic cost savings
  - Requires less reagents/well
  - Minimizes waste, requires less cells/well
- Ultra High Throughput Screening capability
- Simple protocol
- Easily adapted to robotic systems