



THE POWER OF

**GUAVA CELLPAINT™ ASSAY:**

*For tracking targeted cells within mixed populations*

**Guava CellPaint Assay:**

- Sensitive, single-cell analysis
- Flexible—96-well plate or tube format
- Optimized reagents minimize assay development time
- Single-color or user-defined two-color options
- A less expensive alternative to conjugated antibodies
- Works with both suspension and adherent cells

Now your mixed culture assays can have the sensitivity of single-cell based methods AND the throughput (96-well option) and ease of use of a microplate reader. The **Guava CellPaint Assay**, when used in conjunction with the Guava PCA systems, offers single-cell analysis capabilities for mixed cultures without the complexity of traditional methods. The assay uses a well-characterized fluorescent dye that diffuses freely into cells and is retained within the cell without affecting cellular function; cell populations are easily differentiated with the single dye or user-defined dual color options. The assay system is easier to use than traditional methods, and because it is optimized for the Guava PCA systems, assay development time is significantly reduced, increasing laboratory productivity.

The Guava CellPaint Assay utilizes the cell tracking dye only as a single color assay to track target cells within a mixed population for *in vivo* and *in vitro* applications. A second color can be added to perform a dual color assay for monitoring protein expression or antigen specificity; the two-color mode is particularly useful for monitoring specificity of mixed cultures in the same tube, thus reducing the number of tubes or wells required to run the assay.

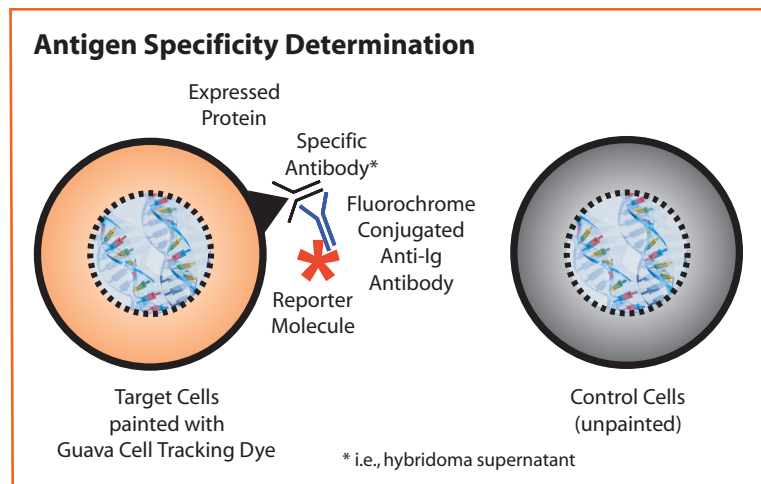


Figure 1. Target cells, labeled with the cell tracking dye, are mixed with control cells (unpainted); target specific primary antibody is added along with a secondary fluorescent conjugated anti-Ig antibody. Antigen specificity is discerned by whether it binds to the painted cells only versus both the painted and unpainted cells, or neither.

## Guava CellPaint Assay

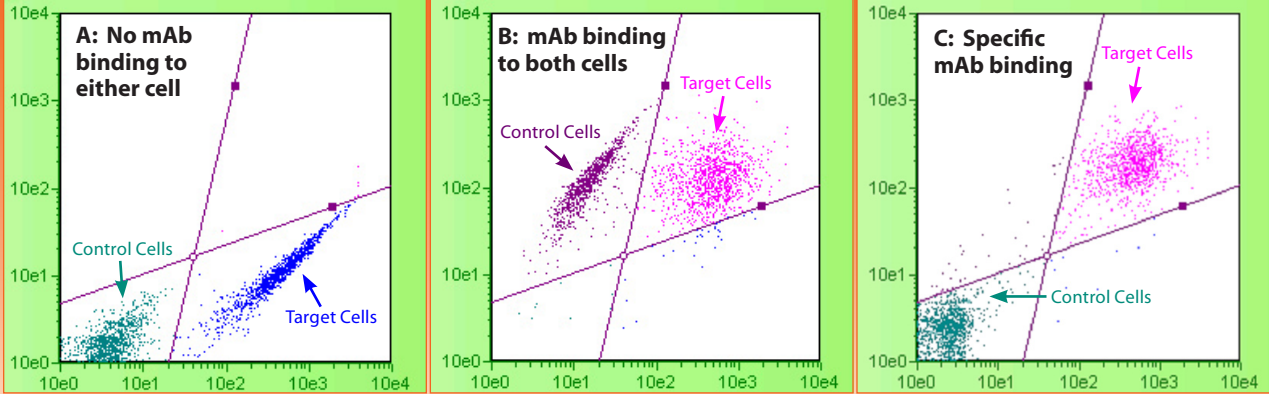


Figure 2A: Neither the target cells nor the control cells bind this particular mAb.

Figure 2B: Both the target cells and the control cells bind this particular mAb.

Figure 2C: The mAb is specific for this target cell line; antigen-expressing or target cells are double positive and the antigen non-expressing or control cells are double negative.

Figure 2. A mixture of antigen expressing (target cells-painted) and non-expressing (control cells-not painted) cells was incubated with an antigen specific mAb conjugated to PE-Cy5. Three different cell lines were evaluated.

### Guava CellPaint Assay

Monitors mixed cultures for antigen specificity or *in vitro/in vivo* cell tracking:

- Determine antigen specificity with mixed cultures in the same tube or well
- A less expensive alternative to conjugated antibodies
- Applicable to many mixed culture assays:
  - specificity of hybridoma supernatants (see Fig. 2A-C)
  - protein expression
  - apoptosis induction
  - co-cultures (feeder layers)

Analysis Results					
	Count	Cells/mL	% Total	PM1 MFI	PM2 MFI
Double Negative	1230	4.39e04	61.50	3.16	1.33
Orange Positive	49	1.75e03	2.45	232.84	6.61
Double Positive	713	2.54e04	35.65	545.05	43.97
Red Positive	8	2.85e02	0.40	31.00	22.63
<hr/>					
Gated Events	Total Count	% Inside Gate	% Outside Gate		
-	2000	-	-		

Figure 3. The Analysis Results table displays data in an easy to read format: double positive, double negative, orange positive (580nm filter), red positive (675 nm filter)

### ORDERING INFORMATION

Guava PCA CellPaint Software Module	Cat. No. 0500-0860
Guava PCA-96 CellPaint Software Module	Cat. No. 0500-0890
Guava PCA/PCA-96 CellPaint Kit	Cat No. 4500-0210
Guava EasyCyte™ CellPaint Software Module	Cat. No. 0500-1080
Guava EasyCyte CellPaint Kit	Cat No. 4500-0230

For pricing, please request a quotation.



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