

biosensors

A Europium Nanosphere-based Time-resolved Fluorescent Immunochromatographic Assay for the Rapid Screening of 4, 4'-Dinitrocarbanilide in Chicken Muscle: Aiming at Improving Strip Method Performance

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Table S1. Three reconstitution buffers for the Eu³⁺- labeled antibody.

| Reconstitution buffer | Composition | Usage |
|------------------------------|------------------------|--------------|
| 1 [#] | BSA | 1 g |
| | Sucrose | 3 g |
| | Prolin 300 | 2 μ L |
| | Borate buffer (0.02 M) | 100 mL |
| 2 [#] | BSA | 1 g |
| | PEG 20000 | 0.05 g |
| | Prolin 300 | 2 μ L |
| | 0.01 M PBS (pH 7.4) | 100 mL |
| 3 [#] | Tris | 0.605 g |
| | BSA | 5 g |
| | Sucrose | 10 g |
| | Trehalose | 10 g |
| | Prolin 300 | 10 μ L |
| | H ₂ O | 500 mL |

Table S2. Sample dilution buffers used in TRFICA.

| Sample dilution buffer | Composition | Usage |
|-------------------------------|--|--------------|
| 0.01 M PBS | Na ₂ HPO ₄ •12H ₂ O | 0.290 g |
| | NaH ₂ PO ₄ •2H ₂ O | 0.024 g |
| | NaCl | 0.800 g |
| | KCl | 0.020 g |
| | H ₂ O | 1,000 mL |
| Sample dilution buffer 1 | Tween-20 | 50 µL |
| | 0.2 mM Tris-HCl | 10 mL |
| Sample dilution buffer 2 | PVP | 0.050 g |
| | 0.2 mM Tris-HCl | 10 mL |

Table S3. Seven extraction solvents used in TRFICA.

| Extraction solvents | V: V |
|------------------------------------|-------------|
| Acetonitrile | 1 |
| Methanol | 1 |
| Acetonitrile: Trichloroacetic acid | 1: 3 |
| Acetonitrile: Trichloroacetic acid | 1:1 |
| Acetonitrile: Trichloroacetic acid | 3:1 |
| Ethyl acetate | 1 |
| Dichloromethane | 1 |