

**Product No. F-7792**  
**Lot 036H8842**

**Mouse IgG1-FITC/Mouse IgG2a-PE/Anti-Human CD45-Quantum Red™**  
**TRI-TAG™**  
Clones MOPC-21/UPC-10/BRA-55  
Mouse Isotype Control

The MOPC-21 tumor line that produces mouse IgG1, $\kappa$ , is a mineral oil induced plasmacytoma. The product is originated and carried intraperitoneally in BALB/c mice. The IgG1, $\kappa$  is purified from ascites fluid and conjugated to fluorescein isothiocyanate (FITC).

The UPC-10 tumor line that produces mouse IgG2a, $\kappa$ , is a mineral oil induced plasmacytoma. The product is originated and carried intraperitoneally in BALB/c mice. The IgG2a, $\kappa$  is purified from ascites fluid and conjugated to R-phycoerythrin (PE)

Monoclonal Anti-Human CD45 antibody (mouse IgG1 isotype) is derived from the BRA-55 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with the non-T, non-B CALLA positive, ALL cell line REH.<sup>1-3</sup> The isotype is determined using Sigma ImmunoType™ Kit (Sigma Stock No. ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Sigma Stock No. ISO-2). The product is prepared by conjugation of Quantum Red with purified CD45 monoclonal antibody. Quantum Red is Sigma's tandem fluorochrome in which a small organic dye, Cy5, is covalently linked to PE. The PE absorbs light energy at 488 nm and emits in the excitation range of Cy5 which acts as the acceptor dye. The complex then emits at 670 nm.

The conjugates are combined and provided as a solution in 0.01 M PBS, pH 7.4, containing 1% BSA and 0.1% sodium azide (see MSDS\*) as a preservative.

**Protein Concentration:** 200  $\mu$ g/ml total  
67  $\mu$ g/ml FITC Conjugate  
67  $\mu$ g/ml PE Conjugate  
67  $\mu$ g/ml Quantum Red Conjugate

**F/P Molar Ratio:** 5.5 (FITC Conjugate)  
**A<sub>567</sub>/A<sub>280</sub>:** 2.6 (PE Conjugate)  
**A<sub>567</sub>/A<sub>280</sub>:** 2.2 (Quantum Red Conjugate)

#### **Identity and Purity**

Identity and purity of each immunoglobulin is established by immunoelectrophoresis (IEP) and Ouchterlony Double Diffusion (ODD), prior to conjugation.

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#### **Working Concentration**

When used in conjunction with TRI-TAG triple-labeled monoclonal antibodies for flow cytometric staining, 30  $\mu$ l of triple-labeled isotype control is recommended per 1 x 10<sup>6</sup> human peripheral blood lymphocytes.

#### **Reactivity**

When evaluated in flow cytometry, the product did not stain human peripheral blood lymphocytes (PBLs), obtained from whole blood lysis when gating on CD45 positive cells.

#### **Uses**

This product is intended for use as the negative isotype control for TRI-TAG reagents of the mouse IgG1-FITC/mouse IgG2a-PE/anti-human CD45-Quantum Red format. The specificity of staining by monoclonal antibodies to human CD antigens should be verified by establishing the amount of non-specific binding to the target cell population. It is recommended that a non-reactive immunoglobulin of the same isotype, concentration and F/P molar ratio be included as a negative control for each monoclonal antibody reagent used in flow cytometry or other immunoassays.

#### **Storage**

Store at 2-8°C. Protect from prolonged exposure to light. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

\*Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.