Monoclonal Anti-human TROP-2-Fluorescein

Catalog Number: FAB650F
Lot Number: AAYL01
100 Tests

Reagents Provided

Carboxyfluorescein (CFS)–conjugated mouse monoclonal anti-human TROP-2: Supplied as 50 µg of antibody in 1 mL saline containing up to 0.5% BSA and 0.1% sodium azide.

Clone #: 77220

Isotype: mouse IgG_{2A}

Reagents Not Provided

- Flow Cytometry Staining Buffer (Catalog # FC001) or other BSA-supplemented saline buffer.

Storage

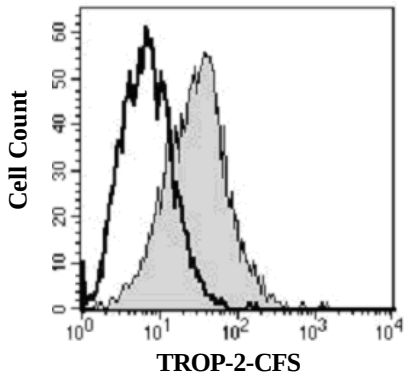
Reagents are stable for **twelve months** from the date of receipt when stored in the dark at 2° - 8° C.

Intended Use

Designed to quantitatively determine the percentage of cells bearing TROP-2 within a population and qualitatively determine the density of TROP-2 on cell surfaces by flow cytometry.

Product Description

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, NS0-derived, recombinant human TROP-2 extracellular domain (rhTROP-2; aa 27 - 274; Accession # P09758). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography. The purified antibody was then conjugated to CFS fluorochrome. Cell surface expression of TROP-2 is determined by flow cytometry using 488 nm wavelength excitation and monitoring emitted fluorescence with a detector optimized to collect peak emissions at 515 - 545 nm.



PC-3 cells were stained with CFS-conjugated anti-human TROP-2 (Catalog # FAB650F, filled histogram) or isotype control (Catalog # IC003F, open histogram).

Background Information

TROP-2, also named tumor-associated calcium signal transducer 2 (TACSTD2), GA733 tumor associated antigen, and epithelial glycoprotein-1 (EGP-1), is a type I transmembrane protein highly expressed in carcinomas.

Flow Cytometry Validation

This antibody was tested for flow cytometry using PC-3 cells:

1. Cells may be Fc-blocked with 1 µg of human IgG/10^5 cells for 15 minutes at room temperature. Do not wash excess blocking IgG from this reaction.
2. After blocking, 10 µL of conjugated antibody was added to 1 - 2.5 x 10^5 cells and incubated for 30 minutes at room temperature.
3. Unbound antibody was removed by washing the cells twice in Flow Cytometry Staining Buffer (Catalog # FC001). Note that whole blood requires a RBC lysis step at this point using Flow Cytometry Human Lyse Buffer (Catalog # FC002).
4. The cells were resuspended in Flow Cytometry Staining Buffer for analysis by flow cytometry. As a control for this analysis, cells in a separate tube should be treated with CFS-labeled mouse IgG_{2A} antibody. This procedure may need to be modified, depending upon cell type and final utilization. Individual users may need to titrate to determine optimal reagent amount for their specific use.

Warning: Contains sodium azide as a preservative - sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.

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