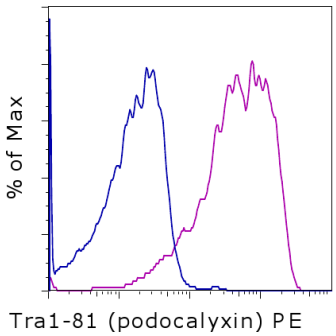
Anti-Human TRA-1-81 (Podocalyxin) PE

Catalog Number: 12-8883
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of 2102Ep human embryonal carcinoma cell line with 0.5 ug of Mouse IgM Isotype Control PE (cat. 12-4752) (blue histogram) or 0.5 ug of Anti-Human TRA-1-81 PE (purple histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Human TRA-1-81 (Podocalyxin) PE
REF **Catalog Number:** 12-8883
Clone: TRA-1-81
Concentration: 0.2 mg/mL
Host/Isotype: Mouse IgM

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial

Description

The TRA-1-81 antibody recognizes a protein expressed on undifferentiated human embryonic stem cells (ES), embyronal carcinoma cells (EC), and embryonic germ cells (EG). Like other stem cell specific markers, the epitope recognized by the TRA-1-81 antibody is lost upon cell differentiation. The TRA-1-81 epitope is resistant to neuraminidase digestion, unlike the epitope recognized by the related TRA-1-60 antibody. The TRA-1-81 antibody is known to specifically recognize a carbohydrate epitope on a keratan sulfated glycoprotein recently identified as podocalyxin, a member of the CD34-related family of sialomucins. Podocalyxin is a transmembrane glycoprotein originally identified on epithelial glomerular cells known as podocytes, and the protein has also been implicated in the development of aggressiveness in a variety of cancers, including breast and prostate cancer.

Applications Reported

This TRA-1-81 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This TRA-1-81 antibody has been tested by flow cytometric analysis of the human embryonal carcinoma (EC) line 2102Ep. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Schopperle WM, DeWolf WC. The TRA-1-60 and TRA-1-81 human pluripotent stem cell markers are expressed on podocalyxin in embryonal carcinoma. Stem Cells. 2007 Mar;25(3):723-30. (**TRA-1-81**, WB, PubMed)

Xu C, Inokuma MS, Denham J, Golds K, Kundu P, Gold JD, Carpenter MK. Feeder-free growth of undifferentiated human embryonic stem cells. Nat Biotechnol. 2001 Oct;19(10):971-4. (PubMed)

Badcock G, Pigott C, Goepel J, Andrews PW. The human embryonal carcinoma marker antigen TRA-1-60 is a sialylated keratan sulfate proteoglycan. Cancer Res. 1999 Sep 15;59(18):4715-9. (**TRA-1-81**, WB, PubMed)

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Andrews PW, Banting G, Damjanov I, Arnaud D, Avner P. Three monoclonal antibodies defining distinct differentiation antigens associated with different high molecular weight polypeptides on the surface of human embryonal carcinoma cells. Hybridoma. 1984 Winter;3(4):347-61. (PubMed)

Related Products
12-4752 Mouse IgM Isotype Control PE

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