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

Catalog Number: 14-8883

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Human TRA-1-81
(Podocalyxin) Purified
Catalog Number: 14-8883
Clone: TRA-1-81
Concentration: 0.5 mg/mL
Host/Isotype: Mouse IgM

REF



Formulation: aqueous buffer, 0.09% sodium azide, contains carrier protein/stabilizer if necessary

Temperature Limitation: Store at 2-8°C.

Batch Code: Refer to vial

Use By: Refer to vial

Caution, contains Azide

Description

The TRA-1-81 antibody recognizes a protein expressed on undifferentiated human embryonic stem cells (ES), embryonic 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, immunoprecipitation, immunoblotting, and immunofluorescence.

Applications Tested

This TRA-1-81 antibody has been tested by flow cytometric analysis of the human embryonic carcinoma (EC) line 2102Ep. This can be used at less than or equal to 0.5 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 10⁵ to 10⁸ cells/test. This antibody has also been tested by immunoblotting of 2102Ep cell extracts, yielding a band of approximately 200-250 kDa (reducing and non-reducing conditions). This antibody has been tested by immunofluorescent staining of formaldehyde fixed and permeabilized cells and can be used at less than or equal to 5µg/ml. 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)

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

11-5890 Anti-Mouse IgM FITC (eB121-15F9)

12-5890 Anti-Mouse IgM PE (eB121-15F9)

12-8863 Anti-Human TRA-1-60 (Podocalyxin) PE (TRA-1-60)

13-8863 Anti-Human TRA-1-60 (Podocalyxin) Biotin (TRA-1-60)

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14-4752 Mouse IgM Isotype Control Purified
14-8833 Anti-Human/Mouse SSEA-3 Purified (eBioMC-631 (MC-631))
14-8843 Anti-Human SSEA-4 Purified (eBioMC-813-70 (MC-813-70))
14-8863 Anti-Human TRA-1-60 (Podocalyxin) Purified (TRA-1-60)
53-5841 Anti-Human/Mouse OCT3/4 Alexa Fluor® 488 (EM92)

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