BACKGROUND
Embryonic stem cells have the ability to remain undifferentiated and proliferate indefinitely in vitro, while maintaining the potential to differentiate into derivatives of all three embryonic germ layers. Undifferentiated human embryonal carcinoma (EC) cells are the stem cells of teratocarcinomas and are characterized by the expression of Stage Specific Embryonic Antigens SSEA-1 and SSEA-3, the high molecular weight glycoproteins TRA-1-60 and TRA-1-81, as well as TRA-2-39 and TRA-2-54. Monoclonal antibodies TRA-2-49 and TRA-2-54 also recognize the liver isozyme of alkaline phosphatase expressed by human EC cells. TRA-1-60 antigen was originally identified as a teratocarcinoma mucin-like antigen expressed on the surface of EC progenitor cells. TRA-1-60 is also characterized as a tumor marker for embryonal carcinoma positive NSTGCT (nonseminomatous testicular germ cell tumors) and is coexpressed with TRA-1-81 and the SSEA on the membrane of a considerable number of stem cells.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: PODXL (human) mapping to 7q32.3.

SOURCE
TRA-1-60 (TRA-1-60) is a mouse monoclonal antibody raised against 2102Ep human embryonal carcinoma cells.

PRODUCT
Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS
TRA-1-60 (TRA-1-60) is recommended for detection of TRA-1-60 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

STORAGE
Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE
For research use only, not for use in diagnostic procedures.

DATA

SELECT PRODUCT CITATIONS

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.