

Antibodies

Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, Alexa Fluor® 488

Mouse monoclonal IgM antibody
against human, rhesus, rabbit
TRA-1-60 (podocalyxin), Alexa Fluor®
488-conjugated

Catalog #60064AD
#60064AD.1

100 Tests 5 µL/test
25 Tests 5 µL/test



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Product Description

The TRA-1-60R antibody reacts with TRA-1-60, a > 200 kDa pluripotent stem cell-specific protein expressed on the surface of undifferentiated human embryonic stem (ES), induced pluripotent stem (iPS), embryonal carcinoma (EC), and embryonic germ (EG) cells, as well as rhesus monkey ES cell lines. A soluble form of TRA-1-60 has been detected in serum of patients with embryonal carcinoma. The epitope, which is lost upon cell differentiation, contains sialic acid, and is associated with a large-molecular-mass transmembrane protein named podocalyxin. Though sialylated, the epitope recognized by the TRA-1-60R antibody is resistant to treatment with neuraminidase.

Target Antigen Name:	TRA-1-60 (Podocalyxin)
Alternative Names:	Podocalyxin, TRA-1
Gene ID:	5420
Species Reactivity:	Human, Rhesus, Rabbit
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	TRA-1-60R
Isotype:	IgM, kappa
Immunogen:	Human embryonal carcinoma cell line 2102Ep cl.2A6
Conjugate:	Alexa Fluor® 488

Applications

Verified:	FC, ICC, IF
Reported:	FC

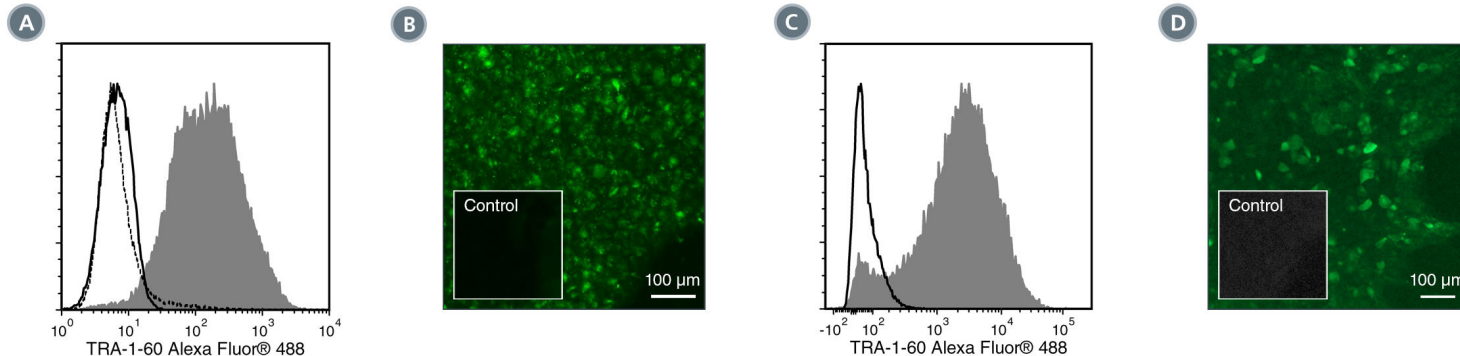
Special Applications: This antibody clone has been verified for labeling human ES and iPS cells grown in TeSR™-E8™ (Catalog #05940), mTeSR™1 (Catalog #85850), and TeSR™2 (Catalog #05860), and for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human ES/iPS Cell TRA-1-60 Positive Selection Kit (Catalog #18166; partial blocking may be observed) and EasySep™ hESC/hiPSC SSEA-4 Positive Selection (Catalog #18165).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	The suggested use of this antibody is: FC, 5 µL per 1 x 10 ⁶ cells in 100 µL; ICC/IF, 100X dilution. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human ES cells (filled histogram) or HT1080 fibrosarcoma cells (negative control; dashed line histogram) labeled with Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, Alexa Fluor® 488. Labeling of human ES cells with Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, Alexa Fluor® 488 is shown (Catalog #60069AD) (solid line histogram).

(B) Human ES cells were cultured in mTeSR™1 on Corning® Matrigel®-coated glass slides, then fixed and labeled with Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, Alexa Fluor® 488. Inset shows cells labeled with Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, Alexa Fluor® 488.

(C) Flow cytometry analysis of human iPS cells labeled with Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, Alexa Fluor® 488 (filled histogram) or Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, Alexa Fluor® 488 (solid line histogram).

(D) Human iPS cells were cultured in mTeSR™1 on Corning® Matrigel®-coated glass slides, then fixed and labeled with Anti-Human TRA-1-60 Antibody, Clone TRA-1-60R, Alexa Fluor® 488. Inset shows cells labeled with Mouse IgM, kappa Isotype Control Antibody, Clone MM-30, Alexa Fluor® 488.

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

- Natunen S et al. (2011) The binding specificity of the marker antibodies Tra-1-60 and Tra-1-81 reveals a novel pluripotency-associated type 1 lactosamine epitope. *Glycobiology* 21(9): 1125–30.
- Miyoshi N et al. (2010) Defined factors induce reprogramming of gastrointestinal cancer cells. *Proc Natl Acad Sci USA* 107(1): 40–5. (IF)
- Chan EM et al. (2009) Live cell imaging distinguishes bona fide human iPS cells from partially reprogrammed cells. *Nat Biotechnol* 27(11): 1033–7.
- King FW et al. (2009) Subpopulations of human embryonic stem cells with distinct tissue-specific fates can be selected from pluripotent cultures. *Stem Cells Dev* 18(10): 1441–50. (FC)
- Kuai XL et al. (2009) Differentiation of nonhuman primate embryonic stem cells along neural lineages. *Differentiation* 77(3): 229–38. (IF)
- Hockemeyer D et al. (2008) A drug-inducible system for direct reprogramming of human somatic cells to pluripotency. *Cell Stem Cell* 3(3): 346–53.
- Draper JS et al. (2002) Surface antigens of human embryonic stem cells: changes upon differentiation in culture. *J Anat* 200(3): 249–58.
- Henderson JK et al. (2002) Preimplantation human embryos and embryonic stem cells show comparable expression of stage-specific embryonic antigens. *Stem Cells* 20(4): 329–37. (FC, IF)
- Thomson JA et al. (1995) Isolation of a primate embryonic stem cell line. *Proc Natl Acad Sci USA* 92(17): 7844–8. (IHC)
- Andrews PW et al. (1984) Three monoclonal antibodies defining distinct differentiation antigens associated with different high molecular weight polypeptides on the surface of human embryonal carcinoma cells. *Hybridoma* 3(4): 347–61.

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