

## Alexa Fluor® 488 anti-human TRA-1-81 Antibody

<b>Catalog# / Size</b>	330709 / 25 tests 330710 / 100 tests
<b>Clone</b>	TRA-1-81
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Podocalyxin
<b>Isotype</b>	Mouse IgM, κ
<b>Description</b>	The TRA-1-81 antibody reacts with a 200-240 kD cell surface antigen expressed by human embryonic stem cells (ESC), embryonic germ cells (EG), and embryonal carcinoma cells. The expression of TRA-1-81 on human ESC is downregulated upon differentiation. Further studies have shown that TRA-1-81 is a neuroaminidase-resistant carbohydrate epitope expressed on podocalyxin, a member of mucin-like glycoprotein with CD34 family. Podocalyxin is a type I transmembrane sialoprotein with anti-adhesion property.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human embryonic carcinoma cell line 2102Ep cl.2A6
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.  * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.  Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.  <a href="#">View full statement regarding label licenses</a>
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunofluorescence cell staining <sup>1</sup> , immunoprecipitation <sup>1</sup> , Western blotting <sup>1,2</sup> , ELISA <sup>1</sup> , and immunohistochemistry <sup>1</sup> of acetone-fixed frozen tissue sections and formalin-fixed paraffin-embedded sections.
<b>Application References</b>	1. Andrews PW, <i>et al.</i> 1984. <i>Hybridoma</i> . 3:347. 2. Schopperle WM and Dewolf WC. 2007. <i>Stem Cells</i> . 25:723.
<b>Product Citations</b>	1. Li X <i>et al.</i> 2019. <i>Stem cell research</i> . 1726:14:00 . <a href="#">PubMed</a> 2. Chao MP <i>et al.</i> 2017. <i>Cell stem cell</i> . 20(3):329-344 . <a href="#">PubMed</a> 3. D öpper H, <i>et al.</i> 2020. <i>Stem Cell Research</i> . 72.55486111. <a href="#">PubMed</a>

4. Yi T, *et al.* 2020. *Stem Cell Research*. 72:71736111. [PubMed](#)
5. Brauchle E, *et al.* 2016. *Stem Cell Reports*. 6:188-199. [PubMed](#)
6. Ahmed E *et al.* 2018. *Stem Cell Res*. 33:15-19 . [PubMed](#)

**RRID** AB\_2561741 (BioLegend Cat. No. 330709)  
AB\_2561742 (BioLegend Cat. No. 330710)

## Antigen Details

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<b>Structure</b>	Mucin-like protein, CD34 family member, 200-240 kD
<b>Distribution</b>	embryonic stem cells (ESC), embryonic germ cells (EG), embryonal carcinoma cells
<b>Function</b>	Anti-adhesion
<b>Cell Type</b>	Embryonic Stem Cells
<b>Biology Area</b>	Cell Biology, Immunology, Stem Cells
<b>Antigen References</b>	1. Andrews PW, <i>et al.</i> 1984. <i>Hybridoma</i> . 3:347. 2. Schopperle WM and Dewolf WC. 2007. <i>Stem Cells</i> . 25:723. 3. Takeda T, <i>et al.</i> 2000. <i>Mol. Biol. Cell</i> . 11:3219.
<b>Gene ID</b>	<a href="#">5420</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

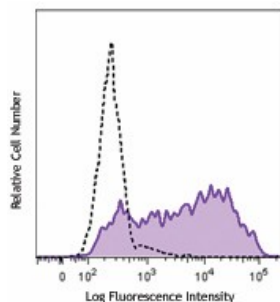
## Other Formats

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Purified anti-human TRA-1-81, Alexa Fluor® 647 anti-human TRA-1-81, PE anti-human TRA-1-81, Alexa Fluor® 488 anti-human TRA-1-81, TotalSeq™-A1039 anti-human TRA-1-81

## Product Data

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NCCIT (human teratocarcinoma) cell line was stained with TRA-1-81 (clone TRA-1-81) Alexa Fluor® 488 (filled histogram) or mouse IgM, κ Alexa Fluor® 488 isotype control (open histogram).

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