

Store at +4°C  
#4439**Oct-4A (C30A3) Rabbit mAb  
(Alexa Fluor® 555 Conjugate)****Cell Signaling**  
TECHNOLOGY®**Orders:** 877-616-CELL (2355)  
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**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> IF-IC	<b>Reactivity:</b> H M	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q01860	<b>Entrez-Gene Id:</b> 5460
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<b>Product Usage Information</b>	<b>Application</b> Immunofluorescence (Immunocytochemistry)	<b>Dilution</b> 1:100
<b>Storage</b>	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity / Sensitivity</b>	Oct-4A (C30A3) Rabbit mAb (Alexa Fluor® 555 Conjugate) detects endogenous levels of total Oct-4A protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human Oct-4A.	
<b>Product Description</b>	This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 555 fluorescent dye and tested in-house for immunofluorescent analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Oct-4A (C30A3) Rabbit mAb #2840.	
<b>Background</b>	Oct-4 (POU5F1) is a transcription factor highly expressed in undifferentiated embryonic stem cells and embryonic germ cells (1). A network of key factors that includes Oct-4, Nanog, and Sox2 is necessary for the maintenance of pluripotent potential, and downregulation of Oct-4 has been shown to trigger cell differentiation (2,3). Research studies have demonstrated that Oct-4 is a useful germ cell tumor marker (4). Oct-4 exists as two splice variants, Oct-4A and Oct-4B (5). Recent studies have suggested that the Oct-4A isoform has the ability to confer and sustain pluripotency, while Oct-4B may exist in some somatic, non-pluripotent cells (6,7).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Looijenga, L.H. et al. (2003) <i>Cancer Res</i> 63, 2244-50.</li> <li>2. Pesce, M. and Schöler, H.R. (2001) <i>Stem Cells</i> 19, 271-278.</li> <li>3. Pan, G. and Thomson, J.A. (2007) <i>Cell Res</i> 17, 42-9.</li> <li>4. Cheng, L. et al. (2007) <i>J Pathol</i> 211, 1-9.</li> <li>5. Takeda, J. et al. (1992) <i>Nucleic Acids Res</i> 20, 4613-20.</li> <li>6. Cauffman, G. et al. (2006) <i>Stem Cells</i> 24, 2685-91.</li> <li>7. Lee, J. et al. (2006) <i>J Biol Chem</i> 281, 33554-65.</li> </ol>	
<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
<b>Applications Key</b>	<b>IF-IC:</b> Immunofluorescence (Immunocytochemistry)	
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected	
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