

Store at +4C  #5177	Oct-4A (C30A3) Rabbit mAb (Alexa Fluor® 488 Conjugate)	
		<b>Orders:</b> 877-616-CELL (2355) orders@cellsignal.com
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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-IC, FC-FP	H M	Endogenous	Rabbit IgG	#Q01860	5460
<b>Product Usage Information</b>	<b>Application</b>				<b>Dilution</b>
	Immunofluorescence (Immunocytochemistry) Flow Cytometry (Fixed/Permeabilized)				1:200 - 1:800 1:50
<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® 488 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 protein.				
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometry and immunofluorescent analysis in human cells. The 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>				

**Species Reactivity** Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Applications Key** **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

**Cross-Reactivity Key** **H:** Human **M:** Mouse

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