Cas9 (7A9-3A3) Mouse mAb (PE Conjugate)
 Image: Cell Signaling technology

 Orders:
 877-616-CELL (2355) orders@cellsignal.com

 Support:
 877-678-TECH (8324)

 Web:
 info@cellsignal.com cellsignal.com

 3 Trask Lane
 Danvers
 Massachusetts
 01923
 USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: FC-FP	Reactivity: All	Sensitivity: Transfected Only	Source/Isotype: Mouse IgG1	UniProt ID: #Q99ZW2	Entrez-Gene Id: 901176	
Product Usage		Application			Dilution	
Information		Flow Cytometry (Fixed/Permeabilized)			1:50	
Storage	ć	Supplied in PBS (pH 7 antibodies. Protect froi	.2), less than 0.1% sodium azid n light. Do not freeze.	e and 2 mg/ml BSA. Store at 4°C.	. Do not aliquot the	
Specificity / Sensiti	vity (Cas9 (7A9-3A3) Mous	e mAb (PE Conjugate) recogniz	es transfected levels of total Cas	9 protein.	
Source / Purificatio	n M t	Monoclonal antibody is terminus of Cas9 from	s produced by immunizing anim Streptococcus pyogene.	als with recombinant protein spec	ific to the amino	
Product Description	n f	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Cas9 (7A9-3A3) Mouse mAb #14697.				
Background	7 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	The CRISPR associated protein 9 (Cas9) is an RNA-guided DNA nuclease and part of the <i>Streptococcus pyogenes</i> CRISPR antiviral immunity system that provides adaptive immunity against extrachromosomal genetic material (1). The CRISPR antiviral mechanism of action involves three steps: (i), acquisition of foreign DNA by host bacterium; (ii), synthesis and maturation of CRISPR RNA (crRNA) followed by the formation of RNA-Cas nuclease protein complexes; and (iii), target interference through recognition of foreign DNA by the complex and its cleavage by Cas nuclease activity (2). The type II CRISPR/Cas antiviral immunity system provides a powerful tool for precise genome editing and has potential for specific gene regulation and therapeutic applications (3). The Cas9 protein and a guide RNA consisting of a fusion between a crRNA and a trans-activating crRNA (tracrRNA) must be introduced or expressed in a cell. A 20-nucleotide sequence at the 5' end of the guide RNA directs Cas9 to a specific DNA target site. As a result, Cas9 can be "programmed" to cut various DNA sites both <i>in vitro</i> and in cells and organisms. CRISPR/Cas9 genome editing tools have been used in many organisms, including mouse and human cells (4,5). Research studies demonstrate that CRISPR can be used to generate mutant alleles or reporter genes in rodents and primate embryonic stem cells (6-8).				
Background Refere	ences 1 2 3 2 5 6 7 8	1. Horvath, P. and Barı 2. Wiedenheft, B. et al. 3. Singh, P. et al. (2019 4. Cong, L. et al. (2013) 5. Mali, P. et al. (2013) 6. Li, D. et al. (2013) 7. Shen, B. et al. (2014) 3. Niu, Y. et al. (2014)	 angou, R. (2010) Science 327, (2012) Nature 482, 331-8. 5) Genetics 199, 1-15. 8) Science 339, 819-23. Science 339, 823-6. lat Biotechnol 31, 681-3. 8) Cell Res 23, 720-3. Cell 156, 836-43. 	167-70.		
Species Reactivity	S	pecies reactivity is del	termined by testing in at least o	ne approved application (e.g., wes	stern blot).	
Applications Key	F	FC-FP: Flow Cytometr	y (Fixed/Permeabilized)			
Cross-Reactivity Ke	еу H X G	I: human M: mouse R: : Xenopus Z: zebrafis iP: Guinea Pig Rab: ra	rat Hm: hamster Mk: monkey h B: bovine Dg: dog Pg: pig Sc abbit All: all species expected	Vir: virus Mi: mink C: chicken Dm : S. cerevisiae Ce: C. elegans Hr	: D. melanogaster : horse	

Cas9 (7A9-3A3) Mouse mAb (PE Conjugate) (#35193) Datasheet Without Images Cell Signaling Technology

= ., =0.0	
Trademarks and Patents	Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc. All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.
Limited Uses	Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.
	Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection

with the Products.