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## S100A9 (D5O6O) Rabbit mAb (PE Conjugate)

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

<b>Applications:</b> FC-FP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P06702	<b>Entrez-Gene Id:</b> 6280
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<b>Product Usage Information</b>	<b>Application</b> Flow Cytometry (Fixed/Permeabilized)	<b>Dilution</b> 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>	S100A9 (D5O6O) Rabbit mAb (PE Conjugate) recognizes endogenous levels of total S100A9 protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro107 of human S100A9 protein.	
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated S100A9 (D5O6O) Rabbit mAb #72590.	
<b>Background</b>	S100A8 and S100A9 are calcium-binding proteins that form a noncovalent heterodimer present in monocytes, neutrophils, macrophages, and some epithelial cells (1,2). S100A8 and S100A9 are secreted by a tubulin-dependent mechanism during inflammatory conditions and have antimicrobial and chemotactic functions (3-5). Extracellular S100A8/S100A9 also induces an inflammatory response in endothelial cells, including induction of proinflammatory chemokines and adhesion molecules and increased vascular permeability (6). S100A8/S100A9 induces and recruits myeloid-derived suppressor cells (MDSC) in tumor-bearing mice (7). MDSC produce additional S100A8/S100A9 themselves, resulting in a positive feedback mechanism that sustains MDSC accumulation (7). S100A8/S100A9 is also highly expressed in psoriatic skin, where it directly upregulates transcription of complement protein C3, which contributes to disease (8). In addition, tumor-infiltrating myeloid cells induce expression of S100A8 and S100A9 in cancer cells, which increases invasiveness and metastasis (9).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Odink, K. et al. (1987) <i>Nature</i> 330, 80-2.</li> <li>2. Edgeworth, J. et al. (1991) <i>J Biol Chem</i> 266, 7706-13.</li> <li>3. Rammes, A. et al. (1997) <i>J Biol Chem</i> 272, 9496-502.</li> <li>4. Steinbakk, M. et al. (1990) <i>Lancet</i> 336, 763-5.</li> <li>5. Ryckman, C. et al. (2003) <i>J Immunol</i> 170, 3233-42.</li> <li>6. Viemann, D. et al. (2005) <i>Blood</i> 105, 2955-62.</li> <li>7. Sinha, P. et al. (2008) <i>J Immunol</i> 181, 4666-75.</li> <li>8. Schonthaler, H.B. et al. (2013) <i>Immunity</i> 39, 1171-81.</li> <li>9. Lim, S.Y. et al. (2016) <i>Oncogene</i> 35, 5735-45.</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>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)	
<b>Cross-Reactivity Key</b>	<b>H:</b> Human	
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