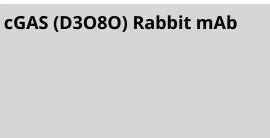
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Applications: W, W-S, IP	<b>Reactivity:</b> M	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 62	<b>Source/Isotype:</b> Rabbit IgG	UniProt ID: #Q8C6L5	<b>Entrez-Gene Id:</b> 214763		
Product Usage Information		<b>Application</b> Western Blotting Simple Western™ Immunoprecipitation			<b>Dilution</b> 1:1000 1:50 - 1:250 1:200			
Storage		Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.						
Specificity/Sen	Sensitivity cGAS (D3O8O) Rabbit mAb recognizes endogenous levels of mouse cGAS protein.							
Source / Purific	cation	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala66 of mouse cGAS protein.						
Background		Cyclic GMP-AMP synthase (cGAS, MB21D1) is an antiviral enzyme that produces the second messenger cyclic-GMP-AMP (cGAMP) in response to cytoplasmic DNA (1,2). The cGAS protein acts as a cytosolic DNA sensor that binds DNA and produces the cGAMP second messenger from ATP and GTP (1,2). cGAMP binds to and activates STING, a transmembrane adaptor protein that is a critical component of the cellular innate immune response to pathogenic cytoplasmic DNA (1-4). STING is ubiquitously expressed and found predominantly in the ER (3). Following activation, STING translocates with TBK1 to perinuclear endosomes (5). The TBK1 kinase phosphorylates and activates interferon regulatory factors (IRFs) and NF-κB, which leads to the induction of type I interferon and other immune response genes (3-5).						
Background Re	eferences	1. Sun, L. et al. (2013) <i>Science</i> 339, 786-91. 2. Wu, J. et al. (2013) <i>Science</i> 339, 826-30. 3. Ishikawa, H. and Barber, G.N. (2008) <i>Nature</i> 455, 674-8. 4. Zhong, B. et al. (2008) <i>Immunity</i> 29, 538-50. 5. Ishikawa, H. et al. (2009) <i>Nature</i> 461, 788-92.						
Species Reactiv	vity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).						
Western Blot B	Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.						
Applications K	ey	W: Western Blotting W-S: Simple Western™ IP: Immunoprecipitation						
Cross-Reactivit	у Кеу	M: Mouse						
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