

#8863 Store at -20C

Jak3 (D7B12) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, W-S	H M R	Endogenous	115	Rabbit IgG	#P52333	3718

Product Usage Information	Application Western Blotting Simple Western™	Dilution 1:1000 1:10 - 1:50
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 / Sensitivity	Jak3 (D7B12) Rabbit mAb recognizes endogenous levels of total Jak3 protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Jak3 protein.	
Background	<p>Members of the Janus family of tyrosine kinases (Jak1, Jak2, Jak3, and Tyk2) are activated by ligands binding to a number of associated cytokine receptors (1). Upon cytokine receptor activation, Jak proteins become autophosphorylated and phosphorylate their associated receptors to provide multiple binding sites for signaling proteins. These associated signaling proteins, such as Stats (2), Shc (3), insulin receptor substrates (4), and focal adhesion kinase (FAK) (5), typically contain SH2 or other phospho-tyrosine-binding domains.</p> <p>Jak3 is primarily expressed in hematopoietic cells and is required for immune cell function and development (6-8). It binds to the common γ subunit (yc), a shared receptor subunit also used by several cytokines including IL-2, IL-4, IL-7, IL-9, and IL-15 (9). IL-2 signaling and Stat5 activation are highly impaired by the loss of Jak3 (10,11). Jak3 is phosphorylated at multiple sites, including Tyr980 and 981 within the activation loop (12-14).</p>	
Background References	<ol style="list-style-type: none"> Leonard, W.J. and O'Shea, J.J. (1998) <i>Annu Rev Immunol</i> 16, 293-322. Darnell, J.E. (1997) <i>Science</i> 277, 1630-5. VanderKuur, J. et al. (1995) <i>J Biol Chem</i> 270, 7587-93. Argetsinger, L.S. et al. (1995) <i>J Biol Chem</i> 270, 14685-92. Zhu, T. et al. (1998) <i>J Biol Chem</i> 273, 10682-9. Thomis, D.C. et al. (1995) <i>Science</i> 270, 794-7. Nosaka, T. et al. (1995) <i>Science</i> 270, 800-2. Park, S.Y. et al. (1995) <i>Immunity</i> 3, 771-82. Russell, S.M. et al. (1994) <i>Science</i> 266, 1042-5. Johnston, J.A. et al. (1994) <i>Nature</i> 370, 151-3. Oakes, S.A. et al. (1996) <i>Immunity</i> 5, 605-15. Zhou, Y.J. et al. (1997) <i>Proc Natl Acad Sci USA</i> 94, 13850-5. Cheng, H. et al. (2008) <i>Mol Cell Biol</i> 28, 2271-82. Rikova, K. et al. (2007) <i>Cell</i> 131, 1190-203. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot 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 Key	WB: Western Blotting W-S: Simple Western™
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected

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Limited Uses

Jak3 (D7B12) Rabbit mAb (#8863) Datasheet Without Images Cell Signaling Technology

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