

#68790 Store at -20C

Phospho-Tyk2 (Tyr1054/1055) (D7T8A) Rabbit mAb



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:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	134	Rabbit IgG	#P29597	7297

Product Usage Information	Application Western Blotting	Dilution 1:1000
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	Phospho-Tyk2 (Tyr1054/1055) (D7T8A) Rabbit mAb recognizes endogenous levels of Tyk2 protein only when phosphorylated at Tyr1054 and Tyr1055. Cross-reactivity was not observed with other Jak family members.	
Species predicted to react based on 100% sequence homology:	Mouse, Rat	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phospho-peptide corresponding to residues surrounding Tyr1054/1055 of human Tyk2 protein.	
Background	<p>Tyk2 is a member of the Jak family of protein tyrosine kinases. It associates with and is activated by receptors for many cytokines including IL-13, the IL-6 family, IL-10, and IFN-α and β (1-3). Following ligand binding, Tyk2 is activated by phosphorylation of Tyr1054 and/or Tyr1055 (4). Tyk2 is required for the tyrosine phosphorylation of Stat3 in the IFN-β signaling cascade (5).</p> <p>The role of Tyk2 has been extensively studied in terms of its involvement in immune regulation and pathological significance (reviewed in 6). Deletion of Tyk2 in mice results in increased sensitivity to infection and defective tumor surveillance, but only a partial effect on Type I interferon signaling (7, 8). In contrast, a human patient diagnosed with hyper-IgE syndrome having increased susceptibility to various microorganisms was found to have a homozygous mutation of Tyk2 (9). These studies suggest a more critical role of Tyk2 in humans with regards to Type I interferon signaling as well as other cytokines including IL-23, IL-6, and IL-10.</p>	
Background References	<ol style="list-style-type: none"> Velazquez, L. et al. (1995) <i>J. Biol. Chem.</i> 270, 3327-34. Stahl, N. et al. (1994) <i>Science</i> 263, 92-5. Leonard, W.J. (1998) <i>Annu. Rev. Immunol.</i> 16, 293-322. Gauzzi, M.C. et al. (1996) <i>J Biol Chem</i> 271, 20494-500. Rani, M.R. et al. (1999) <i>J. Biol. Chem.</i> 274, 32507-11. Strobl, B. et al. (2011) <i>Front Biosci (Landmark Ed)</i> 16, 3214-32. Karaghiosoff, M. et al. (2000) <i>Immunity</i> 13, 549-60. Shimoda, K. et al. (2000) <i>Immunity</i> 13, 561-71. Minegishi, Y. et al. (2006) <i>Immunity</i> 25, 745-55. 	

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

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

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.