

IRF-8 (D20D8) Rabbit mAb

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:
W, W-S, IP, ChIP, ChIP-seq	H M	Endogenous	50	Rabbit IgG	#Q02556	3394

Product Usage Information

For optimal ChIP and ChIP-seq results, use 20 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:10 - 1:50
Immunoprecipitation	1:50
Chromatin IP	1:25
Chromatin IP-seq	1:25

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

IRF-8 (D20D8) Rabbit mAb detect endogenous levels of total IRF-8 protein. An unknown background band is detected at 80 kDa in some cell lines.

Species predicted to react based on 100% sequence homology

Rat, Monkey, Xenopus, Bovine

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly65 of human IRF-8 protein.

Background

Interferon regulatory factors (IRFs) comprise a family of transcription factors that function within the Jak/Stat pathway to regulate interferon (IFN) and IFN-inducible gene expression in response to viral infection (1). IRFs play an important role in pathogen defense, autoimmunity, lymphocyte development, cell growth, and susceptibility to transformation. The IRF family includes nine members: IRF-1, IRF-2, IRF-9/ISGF3γ, IRF-3, IRF-4 (Pip/LSIRF/ICSAT), IRF-5, IRF-6, IRF-7, and IRF-8/ICSBP. All IRF proteins share homology in their amino-terminal DNA-binding domains. IRF family members regulate transcription through interactions with proteins that share similar DNA-binding motifs, such as IFN-stimulated response elements (ISRE), IFN consensus sequences (ICS), and IFN regulatory elements (IRF-E) (2).

IRF-8/ICSBP is expressed predominately in hematopoietic cells and is further increased upon treatment with interferon (3,4). IRF-8 can function as a transcription repressor of ICS-containing promoters (4). Expression of IRF-8 can lead to the downregulation of the anti-apoptotic protein Bcl-2 (5). Originally described as being induced by IFN-γ, IRF-8 expression is also elevated by IRF-α as well as IL-12 in NK and T cells (6). IRF-8 deficient mice have enhanced susceptibility to various pathogens and impaired production of interferons, as well as deregulated hematopoiesis that resembles chronic myelogenous leukemia (7,8). IRF-8 also regulates bone metabolism by suppressing osteoclast formation (9).

Background References

1. Taniguchi, T. et al. (2001) *Annu Rev Immunol* 19, 623-55.
2. Honda, K. and Taniguchi, T. (2006) *Nat Rev Immunol* 6, 644-58.
3. Driggers, P.H. et al. (1990) *Proc Natl Acad Sci U S A* 87, 3743-7.
4. Weisz, A. et al. (1992) *J Biol Chem* 267, 25589-96.
5. Burchert, A. et al. (2004) *Blood* 103, 3480-9.
6. Lehtonen, A. et al. (2003) *Cytokine* 24, 81-90.
7. Holtschke, T. et al. (1996) *Cell* 87, 307-17.
8. Fehr, T. et al. (1997) *J Exp Med* 185, 921-31.
9. Zhao, B. et al. (2009) *Nat Med* 15, 1066-71.

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	W: Western Blotting W-S: Simple Western™ IP: Immunoprecipitation ChIP: Chromatin IP ChIP-seq: Chromatin IP-seq
Cross-Reactivity Key	H: Human M: Mouse
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	<p>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.</p> <p>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.</p>