Revision 1

Store at -20C

#14316

C-Reactive Protein (D1N1U) 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:
W	H	Endogenous	25	Rabbit IgG	#P02741	1401

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10mM sodium HEPES (pH 7.5), 150mM NaCl, 100 µg/ml, 50% glycerol and less than 0.02% sodium azide. Store at -20ºC. Do not aliquot the antibody.

Specificity/Sensitivity

C-Reactive Protein (D1N1U) Rabbit mAb recognizes endogenous levels of total human C-reactive protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val38 of human C-reactive protein.

Background

C-reactive protein (CRP) is a pentraxin family protein involved in several host defense-related functions as a result of its ability to bind to foreign pathogens and damaged host cells (1). CRP is a cyclic, non-covalent pentameric protein and normal constituent of human sera that is produced primarily by hepatocytes (2). Secretion of CRP is induced by proinflammatory cytokines, including IL-6 and IL-1β, and significantly increases during acute phase responses to tissue injury, infection, or other inflammatory stimuli (3,4). The presence of CRP is often utilized as an inflammation marker, and monitoring CRP levels in plasma is a useful tool in assessing disease progression or treatment effectiveness. CRP is also regarded as a risk assessment factor for the development and progression of cardiovascular disease (5).
CRP binds to phosphorylcholine that is present on the surface of damaged tissues and in the bacterial cell wall of certain pathogens (6). Through this calcium-dependent interaction, CRP promotes agglutination and initiates the activation of the complement cascade. This results in enhanced opsonization through CRP interaction with FcγRI and FcγRIIA, which facilitates phagocytosis (7).

Background References

1. Black, S. et al. (2004) *J Biol Chem* 279, 48487-90.
2. Thompson, D. et al. (1999) *Structure* 7, 169-77.
3. Weinhold, B. and Rüther, U. (1997) *Biochem J* 327 (Pt 2), 425-9.
4. Zhang, D. et al. (1995) *Biochem J* 310 (Pt 1), 143-8.
5. Sellmayer, A. et al. (2003) *Int Angiol* 22, 15-23.
6. Gewurz, H. et al. (1982) *Adv Intern Med* 27, 345-72.
7. Du Clos, T.W. and Mold, C. (2004) *Immunol Res* 30, 261-77.

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

Cross-Reactivity Key

H: Human

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.