

Store at
-20C
#75484**TIM-4 (D3W4F) XP[®] 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, IHC-Bond, IHC-P, FC-L	H	Endogenous (IHC-P), Transfected (W, F)	40-60	Rabbit IgG	#Q96H15	91937

Product Usage Information**Application**

Western Blotting
IHC Leica Bond
Immunohistochemistry (Paraffin)
Flow Cytometry (Live)

Dilution

1:1000
1:100
1:100
1:800

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.

For a carrier-free (BSA and azide free) version of this product see product #27337.

Specificity/Sensitivity

TIM-4 (D3W4F) XP[®] Rabbit mAb recognizes endogenous levels of total TIM-4 protein. This antibody does not cross-react with TIM-1 or TIM-3.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro215 of human TIM-4 protein.

Background

T cell Ig- and mucin-domain-containing molecules (TIMs) are a family of transmembrane proteins expressed by various immune cells. TIM-4 is expressed by dendritic cells and macrophages (1). Like TIM-1, TIM-4 is a receptor for phosphatidylserine (2). Interaction of TIM-4 with phosphatidylserine exposed by cells undergoing apoptosis leads to uptake of apoptotic cells (2,3). In this way, TIM-4 regulates adaptive immunity by removing apoptotic antigen-specific T cells following clearance of infection. Peritoneal macrophages from mice deficient in TIM-4 fail to effectively clear apoptotic cells leading to hyperactive T and B cells and autoimmunity (4). In addition, TIM-4 expressed by tumor-associated macrophages and dendritic cells leads to autophagy-mediated degradation of dying tumor cells, resulting in reduced antigen presentation and T cell responses (5). TIM-4 was also identified as a ligand for TIM-1, and interaction between these proteins regulates T cell proliferation (1). Finally, TIM-4 is expressed by a subset of proinflammatory B cells that produce IFN-γ and promote Th1 cell differentiation (6).

Background References

1. Meyers, J.H. et al. (2005) *Nat Immunol* 6, 455-64.
2. Miyanishi, M. et al. (2007) *Nature* 450, 435-9.
3. Kobayashi, N. et al. (2007) *Immunity* 27, 927-40.
4. Rodriguez-Manzanet, R. et al. (2010) *Proc Natl Acad Sci U S A* 107, 8706-11.
5. Baghdadi, M. et al. (2013) *Immunity* 39, 1070-81.
6. Ding, Q. et al. (2017) *J Immunol* 199, 2585-2595.

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 **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin) **FC-L:** Flow Cytometry (Live)

Cross-Reactivity Key

H: Human

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
Alexa Fluor is a registered trademark of Life Technologies Corporation.

The transfer of this product is contingent on the buyer using the purchased product solely in research conducted by the buyer (whether the buyer is an academic or for-profit entity), for Immunocytochemistry, high content screening (HCS) analysis, or flow cytometry applications. The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) resale, whether or not such product or its components are resold for use in research; or for any other commercial purpose. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com.

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.