

Store at
-20C
#42406**Tom20 (D8T4N) 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, IP, IHC-P, IF-IC	H M R Mk	Endogenous	16	Rabbit IgG	#Q15388	9804

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
1:100 - 1:400
1:100 - 1:400

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 #66401.

Specificity/Sensitivity

Tom20 (D8T4N) Rabbit mAb recognizes endogenous levels of total Tom20 protein. Tom20 (D8T4N) Rabbit mAb does not have detectable signal by indirect fluorescent detection in frozen mouse tissue.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Tom20 protein.

Background

Mitochondria play a central role in cellular energy metabolism and are essential organelles in eukaryotes. In humans, 13 proteins are encoded by the mitochondrial genome while the vast majority of mitochondrial proteins are encoded by the nuclear genome. As a result, most mitochondrial proteins are synthesized as precursors in the cytoplasm and imported across mitochondrial membranes by one or more translocase protein complexes (1). The translocase of the outer mitochondrial membrane (TOM complex) facilitates the import of proteins through the outer mitochondrial membrane, while the complementary translocase of the inner membrane (TIM complex) is responsible for protein transport to the mitochondrial matrix. The TOM complex consists of the receptors TOM20, TOM22, TOM70, and the channel-forming protein TOM40 (1). TOM20 is localized in the outer mitochondrial membrane and initially recognizes precursors with a presequence to facilitate protein import across the outer mitochondrial membrane (2). In a sequential process, recognition of the presequence by TOM20 is followed by tethering of the presequence to the TOM40 protein complex for efficient protein import (3).

Background References

1. Chacinska, A. et al. (2009) *Cell* 138, 628-44.
2. Saitoh, T. et al. (2007) *EMBO J* 26, 4777-87.
3. Yamamoto, H. et al. (2011) *Proc Natl Acad Sci U S A* 108, 91-6.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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.