Revision 1

Store at -20C

#29872

Transthyretin (D8T4Q) 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	15, 30, 45, 60	Rabbit IgG	#P02766	7276

Product Usage Information

Application	Dilution
Western Blotting	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

Transthyretin (D8T4Q) Rabbit mAb recognizes endogenous levels of total Transthyretin protein in its monomeric, dimeric, trimeric, and tetrameric forms.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro106 of human Transthyretin protein.

Background

Transthyretin (TTR) is a highly conserved homotetremric protein that is synthesized in the liver and choroid plexus of the brain. TTR was originally discovered as a protein found in human plasma and cerebrospinal fluid (CSF) (1). TTR transports thyroid hormones (TH) and retinol by binding to retinol-binding protein (2). Although TTR is synthesized in the liver and choroid plexus, TTR is detected in blood plasma and cerebrospinal fluid migrating as monomers, dimers, and tetramers. Beyond its function as a carrier protein of TH and retinol in plasma and CSF, several additional TTR functions have been described, including proteolytic cleavage of specific substrates like apolipoprotein, neuropeptide Y (NPY), and APP (3, 4, 5). These neuronal substrates suggest a functional role for TTR in the central nervous system. Consistent with a CNS function, TTR null mice exhibit memory impairments and altered sensorimotor behavior (6, 7). TTR may also be linked to neurodegenerative disease: TTR levels in Alzheimer's disease (AD) patients are negatively correlated with disease progression, and a protective role for TTR, at least in AD mouse models, has been described (8, 9). TTR itself may play a more direct role in disease as gain-of-function mutations in TTR cause the protein to misfold and aggregate into amyloid fibrils, contributing to autosomal dominant hereditary amyloidosis in diseases such as familial amyloid polyneuropathy, familial amyloid cardiomyopathy, and familial leptomeningeal amyloidosis (10).

Background References

1. Vieira, M. and Saraiva, M.J. (2014) *Biomol Concepts* 5, 45-54.
2. Raz, A. and Goodman, D.S. (1969) *J Biol Chem* 244, 3230-7.
3. Sousa, M.M. et al. (2000) *J Lipid Res* 41, 58-65.
4. Liz, M.A. et al. (2009) *Biochem J* 419, 467-74.
5. Costa, R. et al. (2008) *PLoS One* 3, e2899.
6. Buxbaum, J.N. et al. (2008) *Proc Natl Acad Sci U S A* 105, 2681-6.
7. Fleming, C.E. et al. (2009) *J Neurosci* 29, 3220-32.
8. Elovaara, I. et al. (1986) *Acta Neurol Scand* 74, 245-50.
9. Choi, S.H. et al. (2007) *J Neurosci* 27, 7006-10.
10. Sekijima, Y. (2015) *J Neurol Neurosurg Psychiatry* 86, 1036-43.

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

Cross-Reactivity Key

H: Human

Trademarks and Patents

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.