

DAG Lipase α (D3G8H) 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: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 115	Source/Isotype: Rabbit IgG	UniProt ID: #Q9Y4D2	Entrez-Gene Id: 747
-------------------------------	-----------------------------	-----------------------------------	-------------------------	--------------------------------------	-------------------------------	-------------------------------

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

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

Specificity/Sensitivity

DAG Lipase α (D3G8H) Rabbit mAb recognizes endogenous levels of total DAG lipase α protein. This antibody is not predicted to cross-react with DAG lipase β based on sequence homology of the antigen.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser791 of human DAG lipase α protein.

Background

Diacylglycerol (DAG) lipases comprise two enzymes called DAG lipase α and β , which are the products of two related genes (1). DAG lipases are transmembrane proteins composed of a short amino-terminal intracellular domain, four transmembrane domains, and a large carboxy-terminal cytoplasmic domain containing the active site. These enzymes are responsible for the biosynthesis of 2-acylglycerol from diacylglycerol in a calcium-dependent manner (1). One of the major endocannabinoid ligands that activate cannabinoid receptors, 2-arachidonyl glycerol (2-AG), is produced by DAG lipases (2). Research studies suggest that DAG lipase α is the isoform primarily responsible for the central production of 2-AG (3). DAG lipase β has been implicated in studies of 2-AG production at the periphery in specific cell types and pathophysiological contexts, such as in hepatic stellate cells during alcohol induced fatty liver (4).

Background References

1. Bisogno, T. et al. (2003) *J Cell Biol* 163, 463-8.
2. Mechoulam, R. et al. (1995) *Biochem Pharmacol* 50, 83-90.
3. Yoshino, H. et al. (2011) *J Physiol* 589, 4857-84.
4. Jeong, W.I. et al. (2008) *Cell Metab* 7, 227-35.

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 $\text{\textcircled{R}}$ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

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

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

XP is a registered 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.