Revision 1

Store at -20C

#38730

DAF/CD55 (E4G4T) 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	78	Rabbit IgG	#P08174	1604

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

DAF/CD55 (E4G4T) Rabbit mAb recognizes endogenous levels of total DAF/CD55 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human DAF/CD55 protein.

Background

Decay-accelerating factor (DAF/CD55) is a GPI-linked plasma membrane glycoprotein normally expressed on the surface of vascular endothelial and hematopoietic cells, which are continuously exposed to autologous complement components. In conjunction with other membrane complement regulatory proteins (CD35, CD46, and CD59), DAF/CD55 protects healthy cells from inappropriate complement-mediated lysis (1). DAF/CD55 inhibits activation of the complement cascade by promoting membrane dissociation and inactivation of C3 convertase, which inhibits amplification of the classical and alternative complement cascades (2). Research studies have demonstrated that DAF/CD55 is overexpressed in a variety of solid and liquid tumors, which functions to protect tumor cells from complement-mediated attack (3,4). Given its ability to disable the complement cascade and facilitate immune evasion by tumor cells, DAF/CD55 has received attention as a potential therapeutic target for the treatment of human malignancies. CD55 deficiency is also linked to human disease. The inability to express CD55 on the surface of erythrocytes renders them highly susceptible to complement-mediated lysis, which contributes to the development of paroxymal noctural hemoglobinuria (PNH). PNH is characterized by hemolytic anaemia, pancytopenia, and venous thrombosis (5).

Background References

1. Fishelson, Z. et al. (2003) *Mol Immunol* 40, 109-23.
2. Brodbeck, W.G. et al. (1996) *J Immunol* 156, 2528-33.
3. Inoue, T. et al. (2002) *Mol Pathol* 55, 193-9.
4. Niehans, G.A. et al. (1996) *Am J Pathol* 149, 129-42.
5. Brodsky, R.A. (2014) *Blood* 124, 2804-11.

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

Limited Uses

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.