

PCSK7 (D4I5G) Rabbit mAb

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Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 92	Source/Isotype: Rabbit IgG	UniProt ID: #Q16549	Entrez-Gene Id: 9159
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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 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

PCSK7 (D4I5G) Rabbit mAb recognizes endogenous levels of total PCSK7 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu630 of human PCSK7 protein.

Background

PCSK7 (PC7) is a member of the subtilisin-like proprotein convertase family (1,2). Like other members of the family, the protein cleaves precursors at basic amino acids within the motif Arg/Lys-Xn-Arg (cleavage site) (n=2 or 4). PC7 was reported to be localized in the trans-golgi network and at the cell surface membrane, as well as in membrane internalized recycling vesicles (2,3). One function of PCSK7 is its critical role in growth factors processing, for example proEGF to EGF, proVEGF-C to VEGF-C, and BDNF neuropeptide maturation. PCSK7 is also involved in transferrin receptor shedding to regulate iron homeostasis (7,8) and MHC class I stability to regulate antigen presentation in the immunoresponse process (9).

Background References

- Seidah, N.G. and Prat, A. (2012) *Nat Rev Drug Discov* 11, 367-83.
- Rousselet, E. et al. (2011) *J Biol Chem* 286, 2728-38.
- Declercq, J. et al. (2012) *J Biol Chem* 287, 9052-60.
- Rousselet, E. et al. (2011) *J Biol Chem* 286, 9185-95.
- Siegfried, G. et al. (2003) *J Clin Invest* 111, 1723-32.
- Wetsel, W.C. et al. (2013) *Proc Natl Acad Sci U S A* 110, 17362-7.
- Oexle, K. et al. (2011) *Hum Mol Genet* 20, 1042-7.
- Guillemot, J. et al. (2013) *Hepatology* 57, 2514-24.
- Leonhardt, R.M. et al. (2010) *J Immunol* 184, 2985-98.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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