

#14476 Store at -20°C

## DOG1/Anoctamin 1 (D1M9Q) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC	H	Endogenous	150	Rabbit IgG	#Q5XXA6	55107

### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation  
Immunofluorescence (Immunocytochemistry)

#### Dilution

1:1000  
1:50  
1:1600

### 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

DOG1/Anoctamin 1 (D1M9Q) Rabbit mAb recognizes endogenous levels of total Anoctamin 1 protein. An unidentified band is detected around 30 kDa in some tissues.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala976 of human anoctamin 1 protein.

### Background

Anoctamin 1, also called DOG1 for discovered on gastrointestinal stromal tumors protein 1 or TMEM16A for Transmembrane Member 16A, is a plasma membrane calcium-activated chloride channel (1). It is essential for chloride secretion from epithelial tissues (2), and has been shown to be a specific marker for cells of Cajal (3), the pacemaker cells that control smooth muscle contraction. Anoctamin 1 knockout mice exhibit an altered gastric smooth muscle rhythmic contraction (4). More recently, research studies have identified Anoctamin 1 as a heat sensor in nociceptive neurons (5). Heat above 44°C triggers anoctamin 1-dependent depolarization, contributing to the mediation of thermal nociception (5).

### Background References

- Schroeder, B.C. et al. (2008) *Cell* 134, 1019-29.
- Thomas-Gatewood, C. et al. (2011) *Am J Physiol Heart Circ Physiol* 301, H1819-27.
- Gomez-Pinilla, P.J. et al. (2009) *Am J Physiol Gastrointest Liver Physiol* 296, G1370-81.
- Hwang, S.J. et al. (2009) *J Physiol* 587, 4887-904.
- Cho, H. et al. (2012) *Nat Neurosci* 15, 1015-21.

### 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

**WB:** Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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