Revision 4

Store at -20C

#47061

CELSR2 (D2M9H) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P	H	Endogenous	320	Rabbit IgG	#Q9HCU4	1952

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:200

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.

For a carrier free (BSA and azide free) version of this product see product #19983.

Specificity/Sensitivity

CELSR2 (D2M9H) XP® Rabbit mAb recognizes endogenous levels of total CELSR2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His1781 of human CELSR2 protein.

Background

CELSR2 (cadherin EGF LAG seven-pass G-type receptor, also known as flamingo homolog 3 or epidermal growth factor-like protein 2) is a member of the flamingo subfamily of non-classical cadherins, part of the cadherin superfamily. CELSR2 is a 7-transmembrane helix receptor that contains nine cadherin-like domains, seven EGF-like repeats, and 2 laminin A G-type repeats (1). It shares structural characteristics of both an adhesion molecule and a G protein-coupled receptor, suggesting putatives roles in both cell-cell adhesion and juxtacrine signaling. It's function has been associated with dendrite morphogenesis (2), neural plate anterior-posterior pattern formation (3), and regulation of transcription via the Wnt signaling pathway (4). In a loss-of-function mouse model, Celsr2 deletion resulted in defects in the planar organization of ependymal cilia, leading to defective cerebrospinal fluid dynamics and hydrocephalus (5). In humans, SNPs in the CELSR2 gene cluster on chromosome 1 have been associated with enhanced risk of coronary artery disease (6).

Background References

1. Vincent, J.B. et al. (2000) *DNA Res* 7, 233-5.
2. Shima, Y. et al. (2004) *Dev Cell* 7, 205-16.
3. Devenport, D. and Fuchs, E. (2008) *Nat Cell Biol* 10, 1257-68.
4. Qu, Y. et al. (2014) *Proc Natl Acad Sci U S A* 111, E2996-3004.
5. Tissir, F. et al. (2010) *Nat Neurosci* 13, 700-7.
6. Zhou, Y.J. et al. (2015) *Int J Clin Exp Pathol* 8, 9543-51.

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 **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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