microPublication BIOLOGY

9/28/2017 - *Open Access*

sy680 is a novel allele of *pkd-2*

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A. The position of lesion in the *pkd-2* DNA sequence. B. Location of lesion in an alignment of *C. elegans*and human proteins. Position of substitution shown in red.

Description

Summary a new allele of *pkd-2* was isolated in a behavioral genetic screen for male mating defects, and found to result in a substitution of Arginine for Glycine in the equivalent of human PKD2 alanine 615.

Article

The *C. elegans* ortholog of polcystin-2 is encoded by *pkd-2* (Barr et al., 2001). From an EMS screen of a *plg-1; him-5* strain for male mating defective mutants and a secondary behavioral screen for defects in discrete steps of male mating behavior, namely response to contact to hermaphrodites and vulval location (described in Schindelman et al., 2006), we identified a new allele of *pkd-2* based on mapping and complementation. *sy680*fails to complement *pkd-2(sy606)* for defects in response to contact with hermaphrodite and vulval location. Here we report the sequence of this allele. PCR amplification and sequencing of *pkd-2* exons indicated that there was a c–>t transition in the transcribed DNA strand (g–>a in the *pkd-2* sense strand; Figure 1A). This change leads to an altered codon, a Glycine to Arginine substitution the PKD-2 protein. This position corresponds to A615 of the human protein (Figure 1B).

Reagents

Strains:

PS7518 *plg-1(e2001d) III; pkd-2(sy680) IV; him-5(e1490) V*

PS3400 *pkd-2(sy606)*

References

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Funding: Supported by the Howard Hughes Medical Institute (047-101), with which PWS is an investigator.

Reviewed By: Bob O'Hagan

History: Received September 13, 2017 **Accepted** September 28, 2017 **Published** September 28, 2017

Citation: Whittaker, A; Schindelman, G; Gharib, S; Sternberg, PW (2017). *sy680* is a novel allele of *pkd-2*. microPublication Biology. https://doi.org/10.17912/W2SW9M