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(54) Title: DROSOPHILA G PROTEIN COUPLED RECEPTORS, NUCLEIC ACIDS, AND METHODS RELATED TO THE SAME

(57) Abstract: The present invention provides a *Drosophila melanogaster* GPCR (DmGPCR) polypeptides and polynucleotides which identify and encode such a DmGPCR. In addition, the invention provides expression vectors, host cells and methods for its production. The invention also provides methods for the identification of homologs in other animals, and of DmGPCR agonists/antagonists, useful for the treatment of diseases in animals and for the control of insects that are injurious of harmful to plants or animals.