Expression and Function of Ultraspireacle Gene in Reproductive Organs of Drosophila melanogaster

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ultraspireacle (usp) gene product (Usp), as a member of superfamily steroid hormone receptors, mediate the hormone action by heteromerization with with ecdysone receptor (EcR). Based on the genetic and molecular characterization of usp, it has been proposed that Usp functions in at least two significant developmental pathway: eye morphogenesis and female reproduction. We analysed the distribution of Usp protein and transcript in female and male reproductive organs by immunocytochemistry and in situ hybridization. Usp is localized in the nuclei with ubiquitous throughou oogenesis and spermatogenesis. Our results suggest that Usp functions in ovarian differentiation as well as male reproduction.