ISWI

National Cancer Institute

Source

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The Drosophila gene Imitation SWI (Iswi) encodes a DNA helicase involved in chromatin modeling. It contains a SNF2 related domain, a MYB DNA binding domain, a DEAD/DEAH box helicase, and a helicase C-terminal domain. Iswi is a component of NURF, a nucleosome remodeling complex that facilitates the perturbation of chromatin structure in an ATP-dependent manner. The hydrolysis of ATP during the remodeling of chromatin is mediated by Iswi. It is also a component of the ATP-utilizing chromatin assembly and remodeling factor ACF and of the chromatin accessibility complex CHRAC. This subunit serves as the energy-transducing component of chromatin-remodeling machines. NURF is composed of a 215 kD protein, Iswi, nurf-55, and nurf-38. Iswi belongs to the SNF2/RAD54 helicase family, SNF2L subfamily. (from FlyBase 0011604 and NCI)