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Cytochrome P450 (P450) 27C1 is a mitochondrial enzyme in human skin that catalyzes retinoid 3,4-desaturation. The use of a fluorescently-labeled derivative of its iron-sulfur protein electron donor adrenodoxin (Adx) has allowed the study of P450 27C1 interactions, e.g. ion-strength dependence. Adx can also modulate substrate binding to some other mitochondrial P450s, and fluorescence spectroscopy provides a useful tool for investing both kinetic and thermodynamic aspects.



