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Retinoid X Receptor

National Cancer Institute

Source

National Cancer Institute. *Retinoid X Receptor*. NCI Thesaurus. Code C17534.

Human nuclear Retinoid X Receptors RXRA, RXRB, and RXRG (NR2/RXR Family) are transcriptional regulators composed of N-terminal modulating domain, DNA-binding domain (AGGTCA response elements), and C-terminal 9-cis RA-binding domain. RXR homodimers and RXR/RAR heterodimers mediate distinct retinoic acid response pathways. RXRs also interact with TH- and vitamin D receptors, and with NCOA3, NCOA6, PML, and PPARG coactivators; and mediate RA biological effects by binding to specific target gene promoters and inducing target gene transcription. RXRs/LXRs and RXRs/FXR may mediate cholesterol homeostasis, by governing cholesterol transport from peripheral cells, inhibiting cholesterol absorption in the small intestine, and repressing bile acid synthesis through upregulation of ABC1 and repression of CYP7A1 expression. (NCI)