Orphan nuclear receptors

In man, 48 nuclear receptors have been identified from sequence analysis of the genome (see Benoit *et al*., 2006; Germain *et al*., 2006), only half of which have been 'assigned' a ligand. The remainder, listed below, are referred to as 'orphan' nuclear receptors.

Systematic nomenclature	Common nomenclature	Other names	Ensembl ID
NR1D1	Rev-erbα	EAR1, hRev	ENSG00000126368
NR1D2	Rev-erbβ	EAR1β, RVR, BD73	ENSG00000174738
NR2A1	HNF4α	Hepatocyte nuclear factor 4-α, MODY1, TCF14	ENSG00000101076
NR2A2	HNF4γ	Hepatocyte nuclear factor 4-γ	ENSG00000164749
NR2C1	TR2	Testicular receptor 2	ENSG00000120798
NR2C2	TR4	TAK1	ENSG00000177463
NR2E1	TLL	TLX, tailless homologue	ENSG00000112333
NR2E3	PNR	Photoreceptor-specific nuclear receptor, retina-specific nuclear receptor	ENSG00000031544
NR2F1	COUP-TFI	COUPα, EAR3, SVP44	ENSG00000175745
NR2F2	COUP-TFII	COUPβ, ARP1, SVP40	ENSG00000185551
NR2F6	EAR2	–	ENSG00000160113
NR3B1	ERRα	ESRL1, oestrogen-related receptor α, oestrogen receptor-like 1	ENSG00000173153
NR3B2	ERRβ	ESRL2, oestrogen-related receptor β, oestrogen receptor-like 2	ENSG00000119715
NR3B3	ERRγ	ESRL3, oestrogen-related receptor γ, oestrogen receptor-like 3	ENSG00000196482
NR4A1	NGFI-B	NAK1, ST59, nur77, TR3, HMR	ENSG00000123358
NR4A2	NURR1	Immediate-early response protein NOT, transcriptionally inducible nuclear receptor, TINUR, RNR-1	ENSG00000153234
NR4A3	NOR1	Neuron-derived orphan receptor, mitogen-induced nuclear orphan receptor	ENSG00000119508
NR5A1	SF1	Steroidogenic factor 1, adrenal 4-binding protein, steroid hormone receptor Ad4BP, Fushi tarazu factor homologue 1	ENSG00000136931
NR5A2	LRH-1	Liver receptor homologue 1, α1-fetoprotein transcription factor, hepatocytic transcription factor, B1-binding factor, CYP7A promoter-binding factor	ENSG00000116833
NR6A1	GCNF	Germ cell nuclear factor, retinoid receptor-related testis-specific receptor, RTR	ENSG00000148200
NR0B1	DAX-1	AHCH	ENSG00000169297
NR0B2	SHP	Small heterodimer partner	ENSG00000131910

Further Reading

Benoit G, Cooney A, Giguere V, Ingraham H, Lazar M, Muscat G *et al*. (2006). International Union of Pharmacology. LXVI. Orphan nuclear receptors. *Pharmacol Rev* **58**: 798–836.

Germain P, Staels B, Dacquet C, Spedding M, Laudet V (2006). Overview of nomenclature of nuclear receptors. *Pharmacol Rev* **58**: 685–704.