

Table 1: Conserved molecular properties of ERR receptors

	<i>Drosophila</i>	<i>Amphioxus</i>	Mammalian	Refs
Isoforms	Single gene, alternate splicing	Single gene, alternate splicing	Three genes	[15, 18, 22, 26, 30]
DNA binding	ERRE, ERE	ERRE, ERE	ERRE, ERE	[1, 29, 30]
Dimerization	n.d.	ERRE: long isoform: monomer short isoform: dimer ERE: dimer	ERR α /ERRE: dimer induced by phosphorylation ERE: constitutive dimer	[23, 30, 32]
Transactivation	ERRE, ERE	Depends on dimerization	Depends on dimerization	[29, 30, 32]
Deactivation by OHT	Requires three mutations in the LBD	yes	ERR β and ERR γ , not ERR α	[28-29]

footnotes: n.d., not determined

Table 2: Conserved expressions and new hypothetical functions of ERR receptors

	Drosophila	Early chordates	Zebrafish	Mouse	Refs
Early expression	Maternal; later: enhanced by ecdysone pulse	Ascidian: morula Amphioxus: neurula	ERR α : maternal, related to cellular movements	ERR α and β : ES cells ERR β expression drops upon differentiation	[21-22, 24- 25, 31, 33, 37]
Nervous system	n.d.	Motoneurons segmented in posterior brain	ERR α , β and γ : motoneurons segmented in hindbrain	ERR α and γ : differentiating motoneurons	[22, 33, 44]
Muscular system	n.d.	Slow muscles	ERR α : slow muscles	ERR α : slow muscles, differentiating C2C12 cells	[22, 33]

footnote: n.d., not determined