

**Table S2. List of the measured masses by ESI-MS**

Samples	Truncated DNA RE (Da) <sup>#</sup>	DNA RE (Da) <sup>#</sup>	DNA RE dimer (Da) <sup>#</sup>	ERRα- DBD - Truncated DNA 1 :1 complex (Da) <sup>#</sup>	ERRα- DBD + DNA 1 :1 complex (Da) <sup>#</sup>	ERRα- DBD + DNA 2:1 complex (Da) <sup>#</sup>
<i>tff1</i> ERE/IR3	-	15 947	-	-	27 893	-
ERRα-DBD + embERRE/IR3	-	15 941	31 883	-	27 885	39 829
ERRα-DBD + 5'trf	-	15 943	31 887	-	27 888	39 831
ERRα-DBD + 5'emb	15 327	15 945	-	27 738	27 889	-
ERRα-DBD + <i>tra</i> ERRE (29)	-	17 794	-	29 737	-	-
ERRα-DBD embERRE/IR3(29)	16 977	17 794	28 921	29 738	40 866	41 686
ERRα-DBD embERRE/IR3(33)	-	20 268	-	32 212	-	44 157
ERRα-DBD + <i>rb1cc1</i> IR3 (33)	-	20 265	-	32 209	-	44 153

#Mass uncertainty ± 1 Da