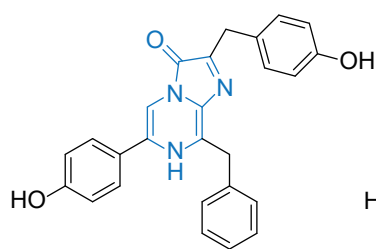
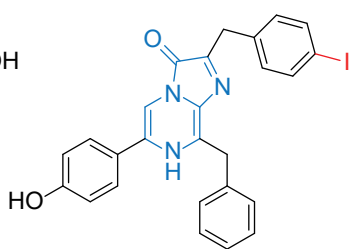


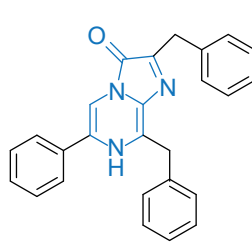
Suppl. Fig S1



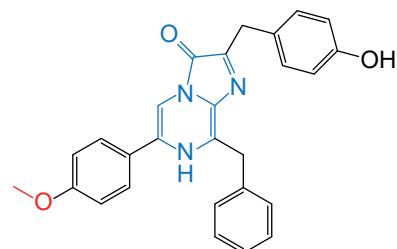
native Coelenterazine
(nCTZ)



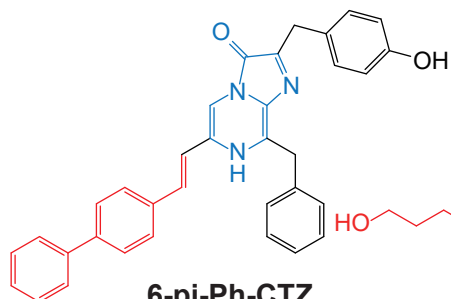
Coelenterazine i
(CTZi)



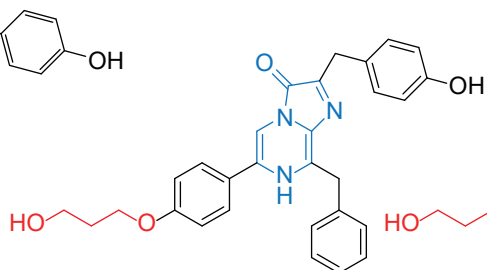
DeepBlueC
(BBlueC)



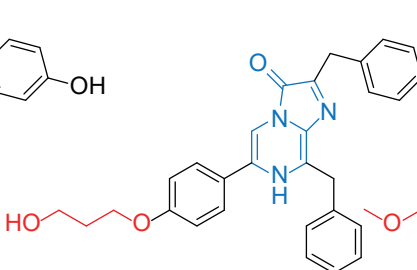
6-ome-CTZ
(Ome)



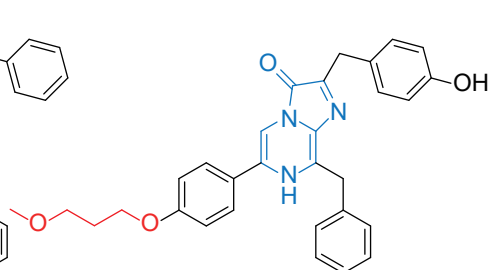
6-pi-Ph-CTZ
(piPH)



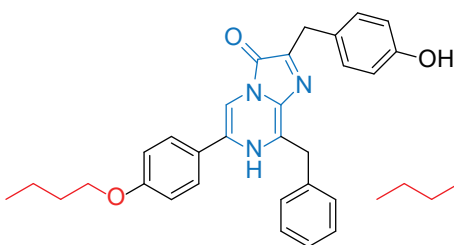
BBlue1.2
(AI3OH)



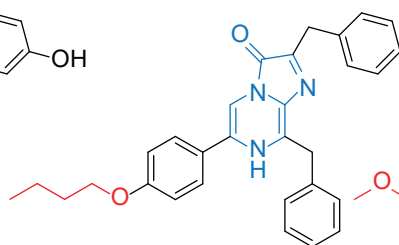
BBlue1.6
(3OH2H)



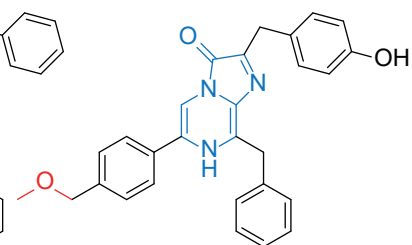
BBlue2.1
(AI3OMe)



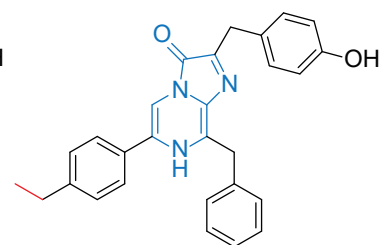
BBlue2.2
(AI3)



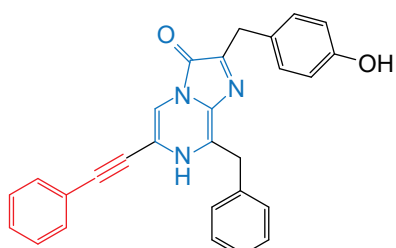
BBlue2.4
(AI32H)



BBlue3.1
(Ether)



BBlue3.2
(Ethyl)

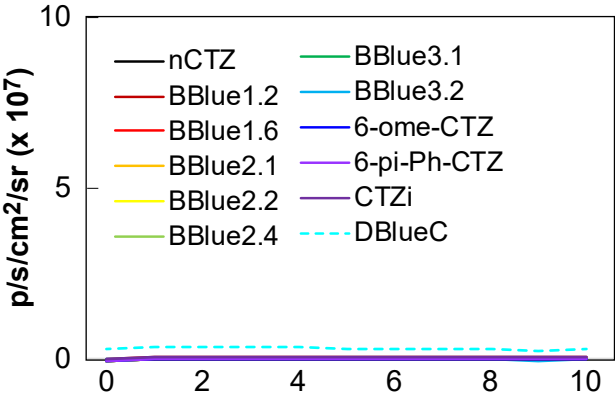


6-etH-CTZ
(6etCTZ)

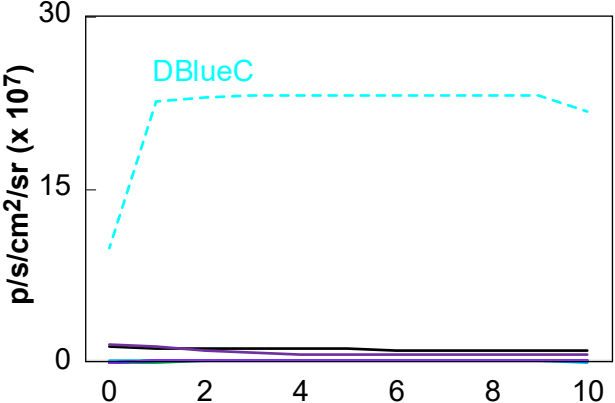
Blue: imidazopyrazinone backbone

Live cells

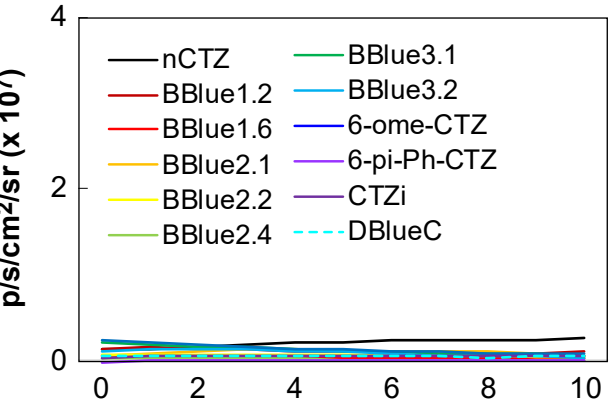
CBLuc Red



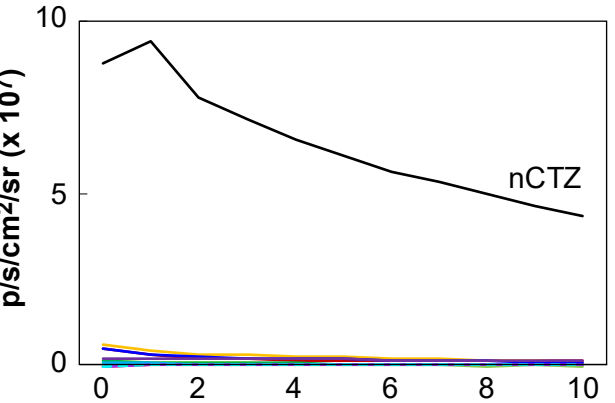
NLuc



ALuc16

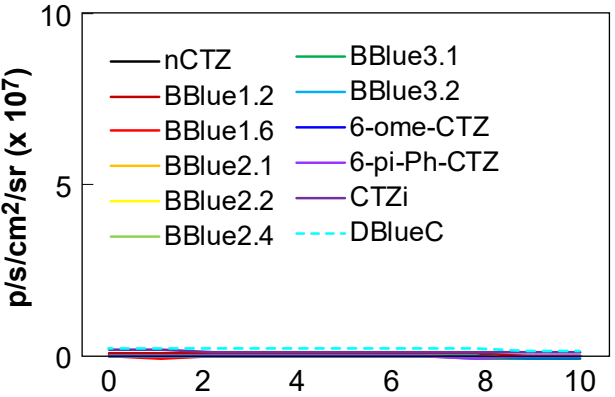


ALuc47

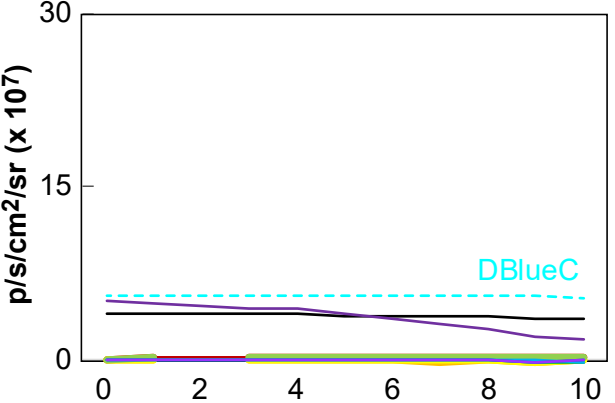


Lysates

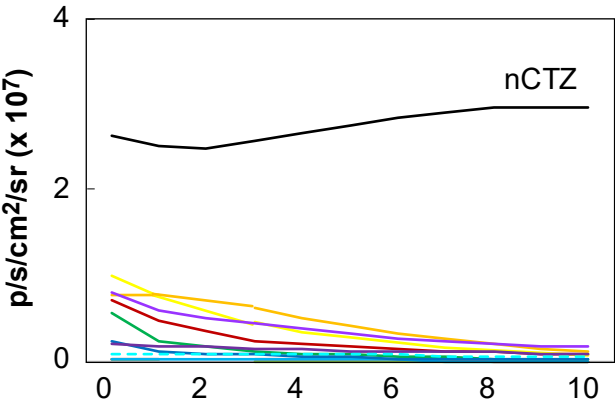
CBLuc Red



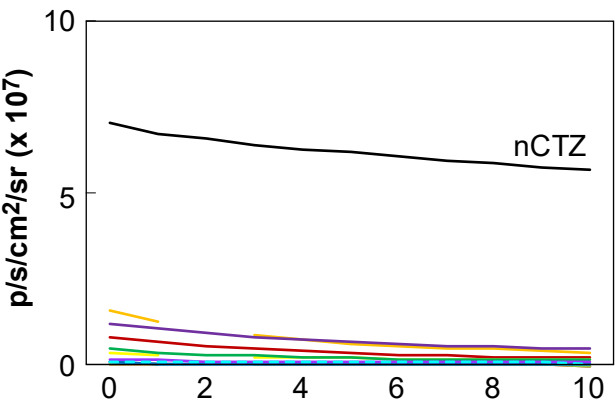
NLuc



ALuc16

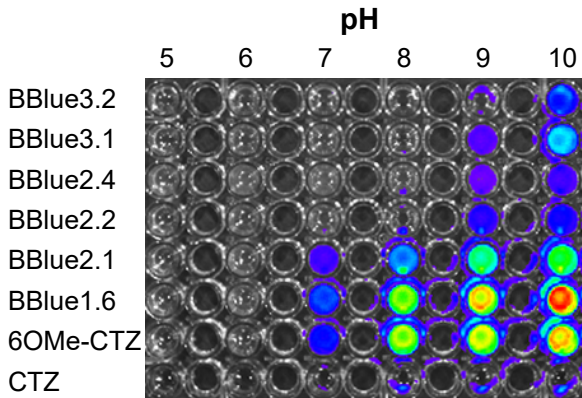


ALuc47

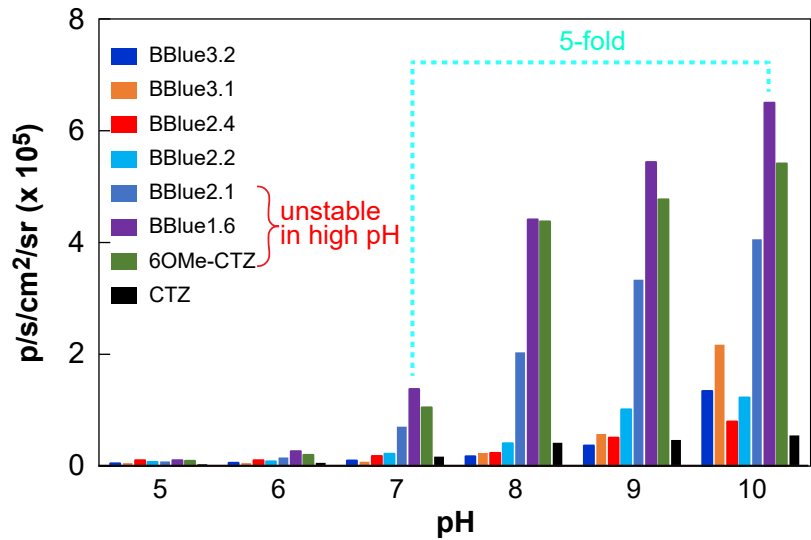


Suppl. Fig S3

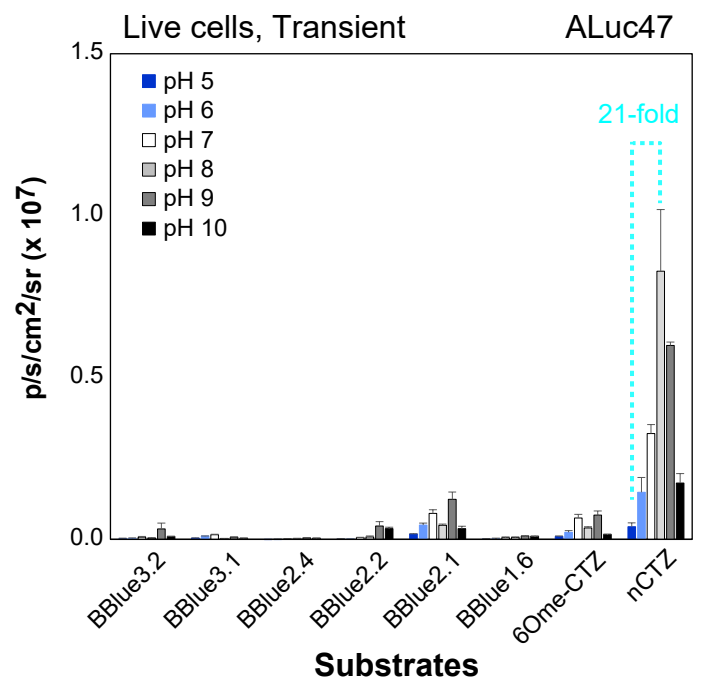
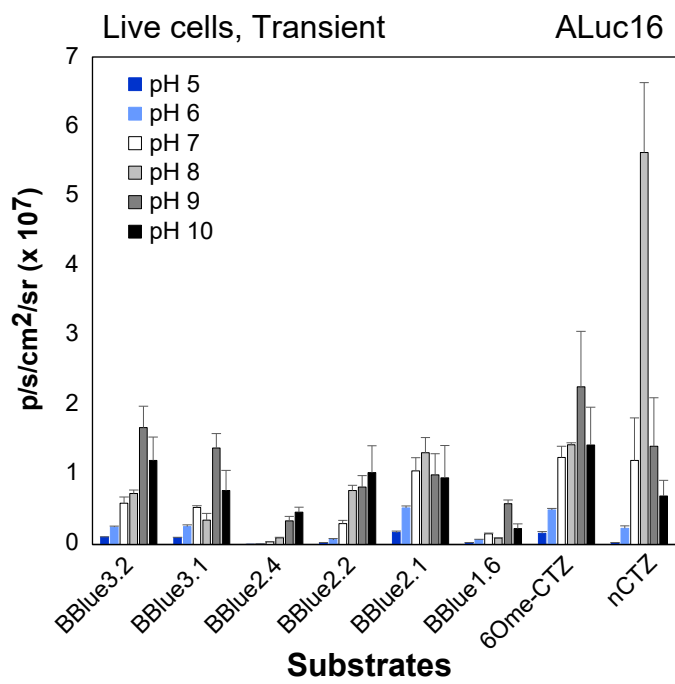
(A) Optical Image of Autoluminescence



(B) pH dependancy of Autoluminescence

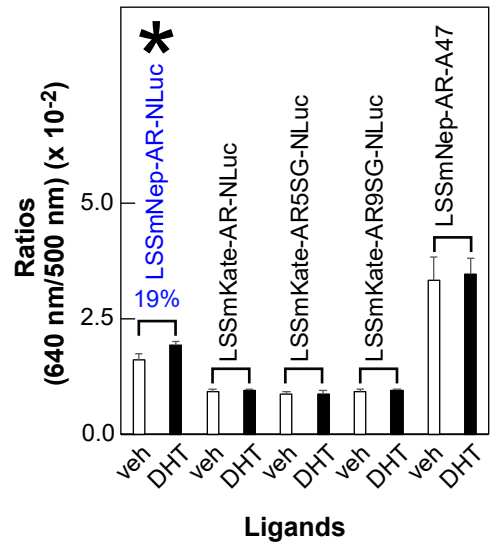


Suppl. Fig S4

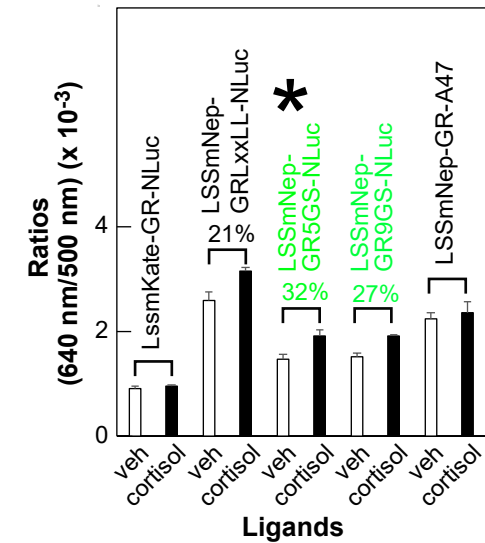


Suppl. Fig S5

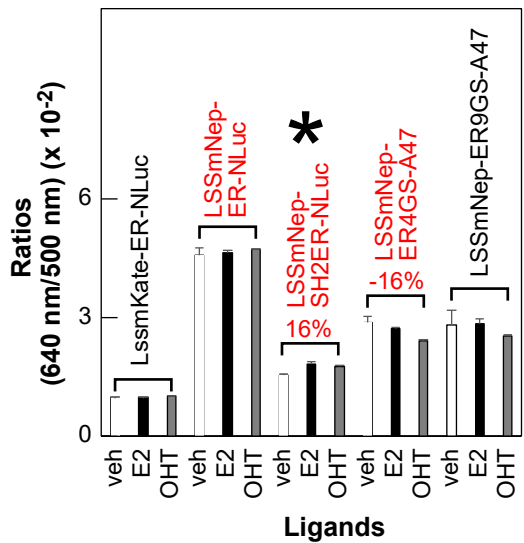
(A) AR probe, Live COS-7 cells



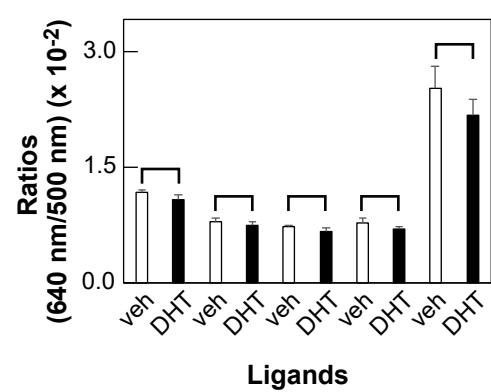
(C) GR probe, Live COS-7 cells



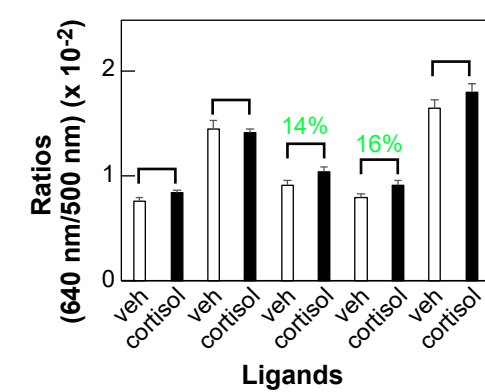
(E) ER probe, Live COS-7 cells



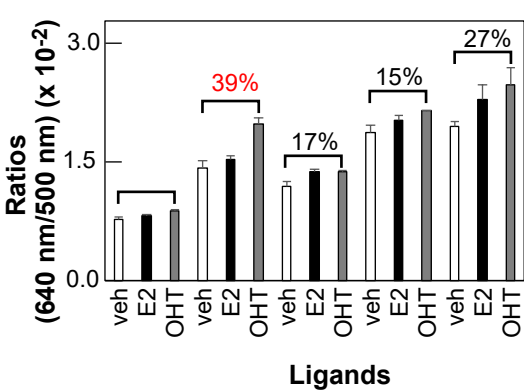
(B) AR probe, Lysate



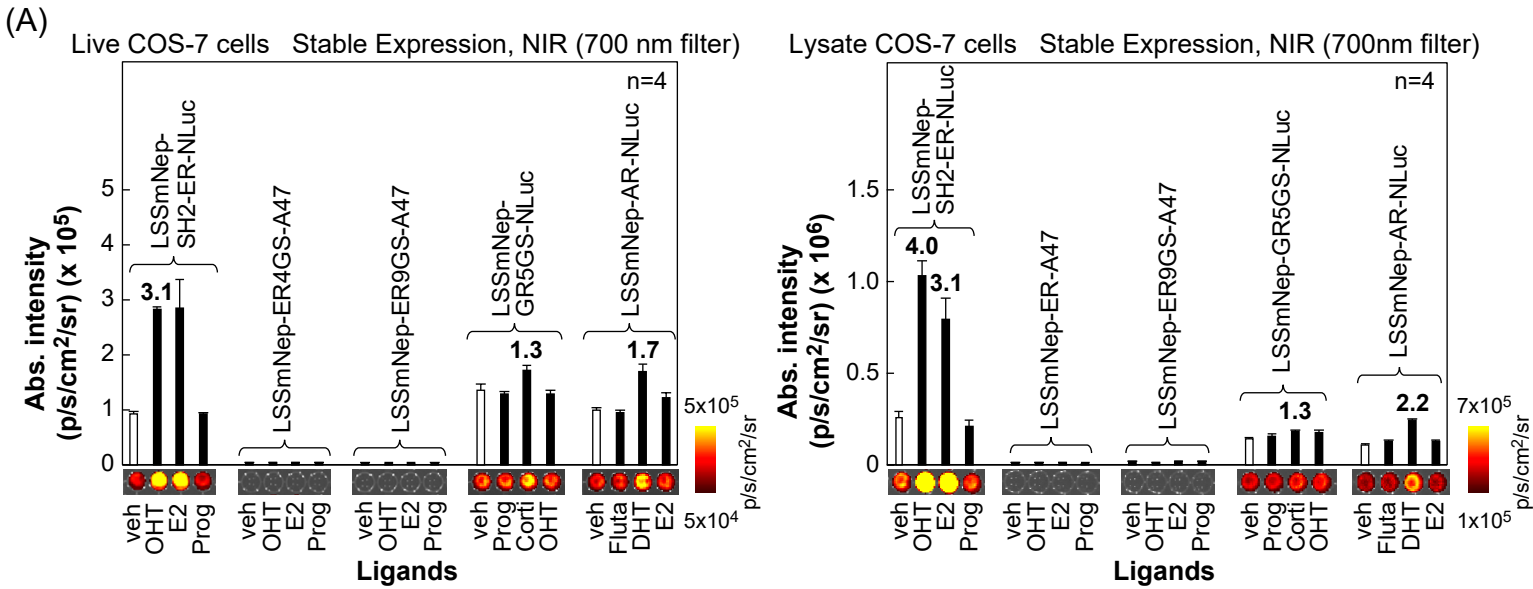
(D) GR probe, Lysate



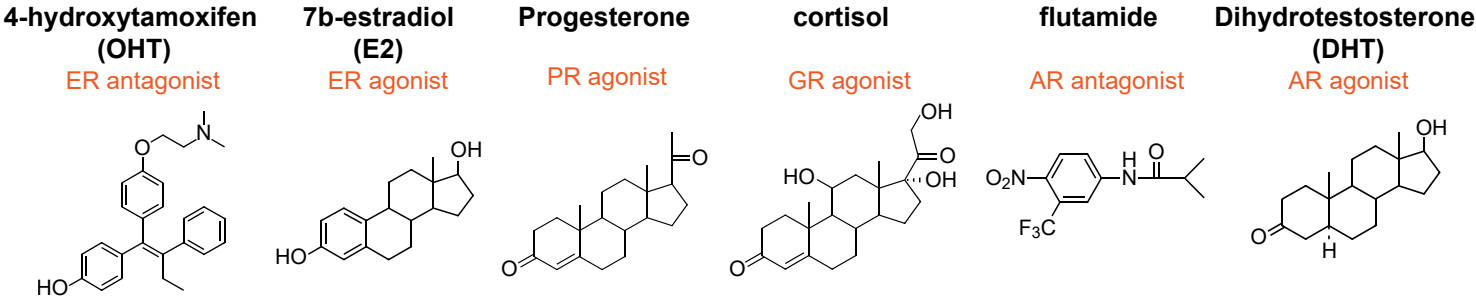
(F) ER probe, Lysate



Suppl. Fig. S6



(B) Chemical structures of ligands



Supple. Table S1

		λ_{max} (RLU)	Peak (nm)	Area > 600 nm (%)
native Coelenterazine (nCTZ)	NLuc	667743	465	1.8
	ALuc16	521857	494	4.8
	ALuc47	1351490	489	1.3
DeepBlueC (DBlueC)	NLuc	1108213	458	0.6
	ALuc16	10624	-	-
	ALuc47	10007	-	-
6-etH-CTZ (6etCTZ)	NLuc	12413	-	-
	ALuc16	138140	490	6.6
	ALuc47	23120	487	-
6-pi-Ph-CTZ (piPh)	NLuc	11423	-	-
	ALuc16	14249	-	-
	ALuc47	12584	-	-
BBlue1.2 (Al3OH)	NLuc	10936	-	-
	ALuc16	226945	498	4.9
	ALuc47	115463	490	8.9
BBlue1.6 (3OH2H)	NLuc	31216	453	-
	ALuc16	10549	-	-
	ALuc47	12333	-	-
BBlue2.1 (Al3OMe)	NLuc	11018	-	-
	ALuc16	143076	490	6.9
	ALuc47	238449	490	6.0
BBLue2.2 (Al3)	NLuc	10838	-	-
	ALuc16	120853	490	6.9
	ALuc47	57104	490	12.9
BBlu2.4 (Al32H)	NLuc	28608	447	-
	ALuc16	10727	-	-
	ALuc47	11881	-	-
BBlue3.1 (Ether)	NLuc	14038	-	-
	ALuc16	80714	494	10.5
	ALuc47	13142	-	-
6-ome-CTZ (Ome)	NLuc	13128	-	-
	ALuc16	214279	498	5.5
	ALuc47	81956	490	9.2