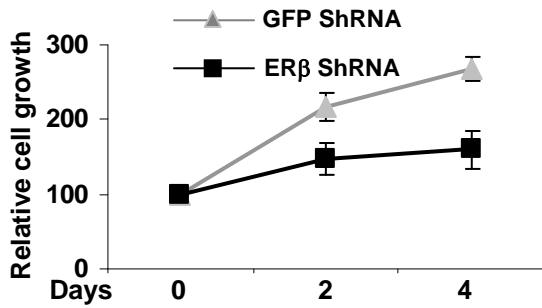


Supplemental Figure Legends

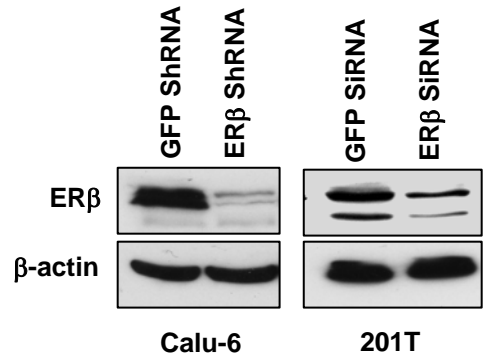
Supplemental Figure 1. Growth curves of Calu-6 GFP ShRNA and ER β ShRNA cells grown in phenol red-free media. Cell growth was measured by MTT assay ($p < 0.05$, t -test).

Supplemental Figure 2. Western blotting of Calu-6 and 201T ER β knock-down cells with anti-ER β antibodies.

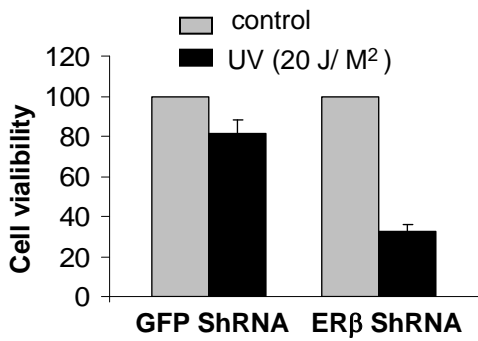
Supplemental Figure 3. Calu-6 GFP ShRNA and ER β ShRNA cells were exposed to UV radiation and 48h later cell growth was measured by MTT assay. Values are represented as mean (\pm SD) from five identical wells.



Supplemental Figure 1



Supplemental Figure 2



Supplemental Figure 3

Electrostatic Interactions at the Interface			Free-Energy Interactions at the Interface		
Energy [kcal/mol]	ER- β Residues	BAD Residues	Energy [kcal/mol]	ER- β Residues	BAD Residues
-11.121	LYS-174	ASP-123	-9.495	LYS-174	ASP-123
-3.065	LYS-174	PHE-121	-1.945	TYR-161	LEU-114
-2.762	LYS-174	ASP-119	-1.853	TYR-159	LEU-114
-1.818	GLY-141	GLU-89	-1.716	LYS-174	PHE-121
-1.286	LYS-170	GLU-120	-1.4	VAL-215	LEU-159
-1.24	LYS-174	SER-118	-1.341	LYS-174	ASP-119
-1.239	ARG-175	ASP-123	-1.224	HIS-180	VAL-150
-1.061	GLN-178	ASP-123	-1.123	HIS-160	LEU-114
-1	LYS-216	SER-163	-1.081	ILE-177	TRP-147
-0.832	ARG-144	GLU-89	-0.962	GLY-141	GLU-89
-0.519	LYS-170	ASP-123	-0.915	ILE-177	VAL-150
-0.488	LYS-170	MET-117	-0.909	HIS-180	TRP-147
-0.437	TYR-161	ARG-115	-0.826	ALA-171	PHE-121
-0.425	LYS-174	GLU-120	-0.768	GLN-178	VAL-150
-0.41	LYS-170	ASP-119	-0.73	TYR-159	TYR-110
-0.347	LYS-216	SER-164	-0.611	ILE-177	SER-164
-0.335	LYS-143	GLU-89	-0.551	ASN-181	VAL-150
-0.301	LYS-216	ARG-112	-0.543	ILE-177	SER-163
-0.29	ARG-144	GLU-88	-0.532	TYR-161	SER-118
-0.285	LYS-170	GLU-113	-0.496	VAL-163	LEU-114

Supplemental Table 1: List of ER β and Bad protein residues that contribute to the top 20 stabilizing electrostatic and free-energy contacts. The energy and the pair of residues involving in each interaction were estimated using FastContact 2.0 software.