

Table S1. Bacterial strains and plasmids used in this study

Strains	Description	Source or reference
<i>E. coli</i>		
<i>DH5α</i>	<i>supE44ΔlacU(Φ 80lacZΔM15)</i> <i>hsdR17 recA1 endA1 gyrA96 thi-1 relA1</i>	Laboratory stock
SCS110	<i>endA dam dcm supE44 Δ (lac-proAB)</i> <i>(F' traD36 proAB lacIq ZΔM15)</i>	Laboratory stock
<i>D. radiodurans</i>		
R1/ GY 9613	ATCC 13939	Laboratory stock
GY 14125	Non homogenotized <i>ΔddrOΩcat</i>	[20]
GY 15910	<i>hflX::HAΩkan</i>	[76]
GY 15950	<i>ΔirrEΩcat</i>	[21]
GY 16977	<i>dr0001::v5Ωkan</i>	This work
GY 16978	<i>ΔirrEΩcat dr0001::v5Ωkan</i>	This work
GY 16979	<i>ddrN::v5Ωkan</i>	This work
GY 16980	<i>ΔirrEΩcat ddrN::v5Ωkan</i>	This work
GY 16925	<i>recA::HAΩkan ΔddrOΩcat / p11891</i> <i>(ddrO⁺/repU_{TS})</i>	This work
GY 17357	<i>ΔddrOΩcat / p17237</i>	This work
GY 17370	<i>ΔddrOΩcat / p17238</i>	This work
GY 17375	<i>ddrD::HAΩkan ΔddrOΩcat / p17238</i> <i>(ddrO⁺/repU_{TS})</i>	This work
GY 17381	<i>pprA::HAΩkan ΔddrOΩcat / p17238</i> <i>(ddrO⁺/repU_{TS})</i>	This work
GY 17393	<i>ΔddrOΩcat / p17245 (ddrO-FLAG/repU_{TS})</i>	This work
GY 17960	<i>ΔirrEΩcat dr0216::v5Ωkan</i>	This work
GY 17962	<i>ΔirrEΩcat dr0217::v5Ωkan</i>	This work
GY 17964	<i>ΔirrEΩcat dr2255::v5Ωkan</i>	This work
GY 17966	<i>ΔirrEΩcat drC0017::v5Ωkan</i>	This work
GY 17968	<i>ΔirrEΩcat drC0023::v5Ωkan</i>	This work
GY 17988	<i>drC0017::v5Ωkan</i>	This work
GY 17994	<i>dr0217::v5Ωkan</i>	This work
GY 17996	<i>dr2255::v5Ωkan</i>	This work
GY 18218	<i>ddrO::v5Ωkan</i>	This work
GY 18303	<i>drA0166::v5Ωkan</i>	This work
GY 18305	<i>dr2173::v5Ωkan</i>	This work
GY 18307	<i>dr0614::v5Ωkan</i>	This work
GY 18310	<i>dr1297::v5Ωkan</i>	This work
GY 18311	<i>dr2410::v5Ωkan</i>	This work
GY 18313	<i>dr0561::v5Ωkan</i>	This work

GY 18317	<i>ddrF::v5Ωkan</i>	This work
GY 18323	<i>ΔirrEΩcat drA0166::v5Ωkan</i>	This work
GY 18325	<i>ΔirrEΩcat dr2173::v5Ωkan</i>	This work
GY 18327	<i>ΔirrEΩcat dr0614::v5Ωkan</i>	This work
GY 18330	<i>ΔirrEΩcat dr1297::v5Ωkan</i>	This work
GY 18331	<i>ΔirrEΩcat dr2410::v5Ωkan</i>	This work
GY 18333	<i>ΔirrEΩcat dr0561::v5Ωkan</i>	This work
GY 18337	<i>ΔirrEΩcat ddrF::v5Ωkan</i>	This work
GY 18341	<i>recG::v5Ωkan</i>	This work
GY 18343	<i>ligA(dr2069)::v5Ωkan</i>	This work
GY 18345	<i>ΔirrEΩcat recG::v5Ωkan</i>	This work
GY 18347	<i>ΔirrEΩcat ligA::v5Ωkan</i>	This work
GY 18364	<i>ddrR::v5Ωkan</i>	This work
GY 18366	<i>ΔirrEΩcat ddrR::v5Ωkan</i>	This work
GY 18368	<i>mutL::v5Ωkan</i>	This work
GY 18370	<i>ΔirrEΩcat mutL::v5Ωkan</i>	This work
GY 18372	<i>irrI::v5Ωkan</i>	This work
GY 18374	<i>ΔirrEΩcat irrI::v5Ωkan</i>	This work
GY 18376	<i>dr1571::v5Ωkan</i>	This work
GY 18378	<i>ΔirrEΩcat dr1571::v5Ωkan</i>	This work
GY 18380	<i>dr1572::v5Ωkan</i>	This work
GY 18382	<i>ΔirrEΩcat dr1572::v5Ωkan</i>	This work
GY 18384	<i>frnE(dr0659)::v5Ωkan</i>	This work
GY 18386	<i>ΔirrEΩcat frnE::v5Ωkan</i>	This work
GY 18388	<i>rsr(dr1262)::v5Ωkan</i>	This work
GY 18392	<i>dr1482::v5Ωkan</i>	This work
GY 18394	<i>ΔirrEΩcat dr1482::v5Ωkan</i>	This work
GY 18505	<i>dr0216::v5Ωkan</i>	This work
GY 18511	<i>hutU::v5Ωkan</i>	This work
GY 18514	<i>ΔirrEΩcat hutU::v5Ωkan</i>	This work
GY 18545	<i>dr0685::v5Ωkan</i>	This work
GY 18547	<i>ΔirrEΩcat dr0685::v5Ωkan</i>	This work
GY 18549	<i>dr217-::v5Ωkan</i>	This work
GY 18551	<i>ΔirrEΩcat dr2174::v5Ωkan</i>	This work
GY 18557	<i>ΔirrEΩcat hflX::HAΩkan</i>	This work

Plasmids	Description	Source or reference
pGTC101	Source of chloramphenicol cassette in <i>D. radiodurans</i>	Laboratory stock
p11806	Source of kanamycin cassette in <i>D. radiodurans</i>	Laboratory stock
p11554	Shuttle vector <i>E. coli</i> / <i>D. radiodurans</i> , Spec ^R	Laboratory stock
p12625	Source of hygromycin cassette in <i>D. radiodurans</i>	Laboratory stock
p12723	Source of FLAG cassette in <i>D. radiodurans</i>	Laboratory stock
p12764	Source of HA cassette in <i>D. radiodurans</i>	Laboratory stock

p11830	Vector thermosensitive for replication in <i>D. radiodurans</i> Spec ^R , <i>prepU</i> _{TS}	[53]
p11891	p13841: <i>prepU</i> _{TS} :: <i>ddrO</i>	[20]
p13841	Vector thermosensitive for replication in <i>D. radiodurans</i> Spec ^R , <i>prepU</i> _{TS} , P _{Spac} -term116	[53]
p17235	p11554 + multiple site of clonage of p13841	This work
p17236	p11830 + multiple site of clonage of p13841	This work
p17237	p17335 : <i>prepU</i> :: <i>ddrO</i>	This work
p17238	p17336 : <i>prepU</i> _{TS} :: <i>ddrO</i>	This work
p17245	p17236 : <i>prepU</i> _{TS} :: <i>ddrO</i> -FLAG	This work
