天净沙系列

CAT#:2-0004

低温运输，-80℃保存

天净沙

大肠杆菌 MDS42 recA 菌种

E.coli MDS42recA Strain

使用手册 V1.0

北京天净沙基因科技有限公司

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产品及特点	大肠杆菌 MSD42 表示 Multiple-deletion Series 42 号菌，它是用合成生物学的方法，将属于 E.coli K-12 系的野生型 MG1655 菌株的非必需基因（如 IS、原噬菌体、假基因）、重组相关基因、转座相关基因、潜在毒力基因等进行精准缩减，同时保留细菌生长和蛋白表达基因而得。它具有下列特点： 1. 其基因组比野生型的大肠杆菌小 14.3%，少 663，316 个碱基，但仍然能够在最低培养基上生长。 2. 其电转效率比正常大小的 E.coli 更高，极端条件下基因组更稳定，蛋白表达更精准，质粒更稳定。 3. 其关键基因型是 F-，λ-，*recA1819，lacZM15，Δflg，ΔfhuACDB*，另外缺失 699 个基因（包括所有 IS 因子和原噬菌体）。缺失 *fhuACDB* 导致抗 T1 噬菌体感染，携带 *lacZM15* 可以进行蓝白斑筛选。详细基因型见下。 4. 本菌种没有任何抗菌素抗性。 5. 缺失 recA 基因，ATP 依赖型重组酶失活，recBCD、recE 和 recF 三条重组路径均丧失，重组率比野生型低 1 万倍。可用于扩增有回文结构的高拷贝质粒。
基因型	E. coli K-12 F- λ- ΔabgA ΔabgB ΔabgR ΔabgT ΔafuB ΔafuC ΔalpA ΔampH ΔamyA ΔappY ΔargF Δbfd Δbfr ΔborD ΔcheA ΔcheB ΔcheR ΔcheW ΔcheY ΔcheZ ΔchiA ΔcodA ΔcodB ΔcpsB ΔcpsG ΔcspB ΔcspF ΔcspI ΔcynR ΔcynS ΔcynT ΔcynX ΔdbpA ΔdicA ΔdicB ΔdicCΔdicFΔeaeH ΔelbA ΔemrE ΔendA ΔessD ΔessQ Δetp Δfcl ΔfeaB ΔfeaR ΔfecA ΔfecB ΔfecC ΔfecD ΔfecE ΔfecI ΔfecR ΔfhuA ΔfhuB ΔfhuC ΔfhuD ΔfimA ΔfimB ΔfimC ΔfimD ΔfimE ΔfimF ΔfimG ΔfimH ΔfimI ΔflgA ΔflgB ΔflgC ΔflgD ΔflgE ΔflgF ΔflgG ΔflgH ΔflgI ΔflgJ ΔflgK ΔflgL ΔflgM ΔflgN ΔflhA ΔflhB ΔflhC ΔflhD ΔflhE ΔfliA ΔfliC ΔfliD ΔfliE ΔfliF ΔfliG ΔfliH ΔfliI ΔfliJΔeaeH ΔelbA ΔemrE ΔendA ΔessD ΔessQ Δetp Δfcl ΔfeaB ΔfeaR ΔfecA ΔfecB ΔfecC ΔfecD ΔfecE ΔfecI ΔfecR ΔfhuA ΔfhuB ΔfhuC ΔfhuD ΔfimA ΔfimB ΔfimC ΔfimD ΔfimE ΔfimF ΔfimG ΔfimH ΔfimI ΔflgA ΔflgB ΔflgC ΔflgD ΔflgE ΔflgF ΔflgG ΔflgH ΔflgI ΔflgJ ΔflgK ΔflgL ΔflgM ΔflgN ΔflhA ΔflhB ΔflhC ΔflhD ΔflhE ΔfliA ΔfliC ΔfliD ΔfliE ΔfliF ΔfliG ΔfliH ΔfliI ΔfliJΔfliK ΔfliL ΔfliM ΔfliN ΔfliO ΔfliP ΔfliQ ΔfliR ΔfliS ΔfliT ΔfliY ΔfliZ Δflu ΔflxA ΔgalF ΔgatA ΔgatB ΔgatC ΔgatD ΔgatR ΔgatY ΔgatZ ΔglcA ΔglcB ΔglcC ΔglcD ΔglcE ΔglcF ΔglcG Δglf Δgmd ΔgnsB ΔgspA ΔgspC ΔgspD ΔgspE ΔgspF ΔgspG ΔgspH ΔgspI ΔgspJ ΔgspK ΔgspL ΔgspM ΔgspO ΔhokC ΔhokD ΔhokE ΔhsdM ΔhsdR ΔhsdS ΔhslJ ΔiadA ΔicdC ΔileY ΔinsA-1 ΔinsA-2 ΔinsA-3 ΔinsA-4 ΔinsA-5 ΔinsA-6 ΔinsA-7 ΔinsB-1 ΔinsB-2 ΔinsB-3 ΔinsB-4 ΔinsB-5 ΔinsB-6 ΔinsB-7 ΔinsC-1 ΔinsC-2 ΔinsC-3

	ΔinsC-4 ΔinsC-5 ΔinsC-6 ΔinsD-1 ΔinsD-2 ΔinsD-3 ΔinsD-4ΔinsD-5 ΔinsD-6 ΔinsD-7 ΔinsE-1 ΔinsE-2 ΔinsE-3 ΔinsE-4 ΔinsE-5 ΔinsF-1 ΔinsF-2 ΔinsF-3 ΔinsF-4 ΔinsF-5 ΔinsG ΔinsH-1 ΔinsH-10 ΔinsH-11 ΔinsH-2 ΔinsH-3 ΔinsH-4 ΔinsH-5 ΔinsH-6 ΔinsH-7 ΔinsH-8 ΔinsH-9 ΔinsI-1 ΔinsI-2 ΔinsI-3 ΔinsJ ΔinsK ΔinsL-1 ΔinsL-2 ΔinsL-3 ΔinsM ΔinsN-1 ΔinsN-2 ΔinsO-1 ΔinsO-2 ΔintA ΔintB ΔintD ΔintE ΔintF ΔintG ΔintQ ΔintR ΔintS ΔintZ ΔisrA ΔisrC Δkil ΔkptA ΔlacA ΔlacI ΔlacY ΔlacZ Δlar ΔldhA Δlit ΔlomR ΔmaoC ΔmcrA ΔmcrB ΔmcrC ΔmhpA ΔmhpB ΔmhpC ΔmhpD ΔmhpE ΔmhpF ΔmhpR ΔmhpT ΔmicC ΔmmuM ΔmmuP ΔmntH ΔmokC ΔmotA ΔmotB ΔmpaA ΔmppA Δmrr ΔnfnB ΔnhaA ΔnhaR ΔninE ΔnmpC ΔnohA ΔnohB ΔnudD ΔnupC ΔogrK ΔompN ΔompT ΔpaaA ΔpaaB ΔpaaC ΔpaaD ΔpaaE ΔpaaF ΔpaaG ΔpaaH ΔpaaI ΔpaaJ ΔpaaK ΔpaaX ΔpaaY ΔperR Δpin ΔpinH ΔpinQ ΔpinR ΔpitB ΔpppA ΔprpB ΔprpC ΔprpD ΔprpE ΔprpR ΔracC ΔracR ΔrecE ΔrecT ΔrelB ΔrelE Δrem ΔrenD ΔrfbA ΔrfbB ΔrfbC ΔrfbD ΔrfbX ΔrhsA ΔrhsB ΔrhsC ΔrhsD ΔrhsE ΔrusA ΔryeE ΔrzoD ΔrzoR ΔrzpD ΔrzpR ΔsbmA ΔsgcA ΔsgcB ΔsgcC ΔsgcE ΔsgcQ ΔsgcR ΔsgcX ΔsieB ΔsokC ΔstfE ΔstfQ ΔstfR Δtap Δtar ΔtauA ΔtauB ΔtauC ΔtauD ΔtfaD ΔtfaE ΔtfaQ ΔtfaR ΔtfaS ΔtrkG Δtsr ΔtynA ΔuspE ΔuspF ΔwbbH ΔwbbI ΔwbbJ ΔwbbK ΔwbbL ΔwcaA ΔwcaB ΔwcaC ΔwcaD ΔwcaE ΔwcaF ΔwcaI ΔwcaJ ΔwcaK ΔwcaL ΔwcaM Δwza Δwzb Δwzc ΔwzxC ΔyafW ΔyafX ΔyafY ΔyafZ ΔyagA ΔyagB ΔyagE ΔyagF ΔyagG ΔyagH ΔyagI ΔyagJ ΔyagK ΔyagL ΔyagM ΔyagN ΔyagP ΔyagQ ΔyagR ΔyagS ΔyagT ΔyagU ΔyagV ΔyagW ΔyagX ΔyagY ΔyagZ ΔyahA ΔyahB ΔyahC ΔyahD ΔyahE ΔyahF ΔyahG ΔyahH ΔyahI ΔyahJ ΔyahK ΔyahL ΔyahM ΔyahN ΔyahO ΔyaiL ΔyaiO ΔyaiP ΔyaiS ΔyaiT ΔyaiV ΔyaiW ΔyaiX ΔyaiY ΔyaiZ ΔybbC ΔybbD ΔybcC ΔybcD ΔybcK ΔybcL ΔybcM ΔybcN ΔybcO ΔybcQ ΔybcS ΔybcV ΔybcW ΔybcY ΔybdF ΔybdG ΔybdJ ΔybdK ΔybfB ΔybfC ΔybfD ΔybfL ΔybfO ΔybfQ ΔyccC ΔyccZ ΔycdP ΔycdQ ΔycdR ΔycdS ΔycdT ΔycdU ΔycfK ΔycgE ΔycgF ΔycgG ΔycgH ΔycgX ΔycgZ ΔycjG ΔycjY ΔycjZ ΔydaC ΔydaE ΔydaF ΔydaG ΔydaL ΔydaM ΔydaN ΔydaO ΔydaQ ΔydaS ΔydaT ΔydaU ΔydaV ΔydaW ΔydaY ΔydbA ΔydbC ΔydbD ΔydbH ΔydbJ ΔydbK ΔydbL ΔydcC ΔydcD ΔydcE ΔyddH ΔydfA ΔydfB ΔydfC ΔydfD ΔydfE ΔydfG ΔydfH ΔydfI ΔydfJ ΔydfK ΔydfO ΔydfP ΔydfQ ΔydfR ΔydfT ΔydfU ΔydfV ΔydfW ΔydfX ΔydfZ ΔyeaJ ΔyecC ΔyecS ΔyedD ΔyedE ΔyedF ΔyedK ΔyedL ΔyedM ΔyedN ΔyedO ΔyeeA ΔyeeP ΔyeeR ΔyeeS ΔyeeT ΔyeeU ΔyeeV ΔyeeW ΔyeeX ΔyegP ΔyegQ ΔyegR ΔyegS ΔyegZ ΔyejO ΔyfdG ΔyfdH ΔyfdI ΔyfdK ΔyfdL ΔyfdM ΔyfdN ΔyfdO ΔyfdP ΔyfdQ ΔyfdR ΔyfdS ΔyfdT ΔyfeA ΔyfeO ΔyffL ΔyffM ΔyffN ΔyffO ΔyffP ΔyffQ ΔyffR ΔyffS ΔyfjH ΔyfjI ΔyfjJ ΔyfjK ΔyfjL ΔyfjM ΔyfjN ΔyfjO ΔyfjP ΔyfjQ ΔyfjR ΔyfjS ΔyfjT ΔyfjU ΔyfjV ΔyfjW ΔyfjX ΔyfjY ΔyfjZ ΔygaF ΔygaQ ΔygaR ΔygaT

	ΔygeL ΔygeM ΔygeN ΔygeO ΔygeP ΔygeQ ΔyghD ΔyghE ΔyghF ΔyghG ΔyghJ ΔyghO ΔyghQ ΔyghR ΔyghS ΔyghT ΔygiL ΔyhcA ΔyhcD ΔyhcE ΔyhcF ΔyhhH ΔyhhI ΔyhhY ΔyhhZ ΔyhiS ΔyibA ΔyibG ΔyibJ ΔyjgW ΔyjgX ΔyjgZ ΔyjhA ΔyjhB ΔyjhC ΔyjhD ΔyjhE ΔyjhF ΔyjhG ΔyjhH ΔyjhI ΔyjhP ΔyjhQ ΔyjhR ΔyjhS ΔyjhT ΔyjhU ΔyjhV ΔyjhW Δ ΔyjiA ΔyjiC ΔyjiD ΔyjiE ΔyjiG ΔyjiH ΔyjiJ ΔyjiK ΔyjiL ΔyjiM ΔyjiN ΔyjiO ΔyjiP ΔyjiQ ΔyjiR ΔyjiS ΔyjiT ΔyjiV ΔyjiW ΔyjiX ΔyjiY ΔyjiZ ΔyjjM ΔyjjN ΔykfA ΔykfB ΔykfC ΔykfF ΔykfG ΔykfH ΔykfI ΔykgA ΔykgB ΔykgC ΔykgD ΔykgE ΔykgF ΔykgG ΔykgH ΔykgI ΔykgJ ΔykgK ΔykgL ΔykgM ΔykgN ΔykgO ΔykiB ΔylbG ΔylbH ΔylcE ΔylcG ΔymcA ΔymcB ΔymcC ΔymcD ΔymdE ΔymfD ΔymfE ΔymfG ΔymfH ΔymfI ΔymfJ ΔymfK ΔymfL ΔymfM ΔymfN ΔymfO ΔymfP ΔymfQ ΔymfR ΔymfS ΔymfT ΔymgA ΔymgB ΔymgC ΔymgD ΔymgF ΔymgG ΔymjC ΔynaA ΔynaE ΔynaI ΔynaJ ΔynaK ΔynbA ΔynbB ΔynbC ΔynbD ΔynbE ΔyncI ΔyncM ΔynfN ΔynfO ΔynfP ΔyoeA ΔyoeF ΔypdJ ΔypeC ΔypjA ΔypjB ΔypjC ΔypjF ΔypjJ ΔypjK ΔypjL ΔypjM ΔyqaC ΔyqaD ΔyqiC ΔyqiG ΔyqiH ΔyqiI ΔyrhA ΔyrhB ΔyrhC recA
原始文献	Pósfai G. *et.al.* 2006. Emergent properties of reduced-genome Escherichia coli. *Science.* 312(5776):1044-1046.
规格及成分	本产品使用塑料袋包装 成分 | 编号 | 规格 | 包装 大肠杆菌 MDS42 recA 甘油菌 | 2-0004 | 1 mL | 2.0 mL 菌种管 使用手册 | 2-0004sc | 1 份 | 无
运输及保存	低温运输，-80℃保种保存，有效期 3 年。
使用方法	本产品可用于常规大肠杆菌感受态细胞制备、转化等实验，具体步骤请见分子克隆手册等工具书。但需要注意下面两点： 1. 由于本菌株缺失鞭毛，因此非常容易聚集，在取样前和测 OD 前都必须充分震荡混匀。 2. 本菌株 LB 固定培养基上形成的菌落在常温不要放置超过 5 天，在 4℃放置不要超过 2 周。
关联产品	大肠杆菌 HB01 菌种