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| **天净沙系列** | **CAT#:2-0005****低温运输，-80℃保存** | ***e13946acdbc5c1a1176b84696beed66*** |
| **大肠杆菌MDS42菌种*****E.coli* MDS42 Strain** |
| **使用手册V1.0** |
| **江苏天净沙基因诊断技术有限公司****网址：**[**www.bingene.com**](http://www.bingene.com)**；电话：400-6005850；电邮：order@bingene.com** |
| **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-,-,*recA1819,lacZM15,∆flg,∆fhuACDB,*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。
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| **基因型** | E. coli K-12 F-- ∆abgA ∆abgB ∆abgR ∆abgT ∆afuB ∆afuC ∆alpA ∆ampH ∆amyA ∆appY ∆argF ∆bfd ∆bfr ∆borD ∆cheA ∆cheB ∆cheR ∆cheW ∆cheY ∆cheZ ∆chiA ∆codA ∆codB ∆cpsB ∆cpsG ∆cspB ∆cspF ∆cspI ∆cynR ∆cynS ∆cynT ∆cynX ∆dbpA ∆dicA ∆dicB ∆dicC∆dicF∆eaeH∆elbA ∆emrE ∆endA ∆essD ∆essQ ∆etp ∆fcl ∆feaB ∆feaR ∆fecA ∆fecB ∆fecC ∆fecD ∆fecE ∆fecI ∆fecR ∆fhuA ∆fhuB ∆fhuC ∆fhuD ∆fimA ∆fimB ∆fimC ∆fimD ∆fimE ∆fimF ∆fimG ∆fimH ∆fimI ∆flgA ∆flgB ∆flgC ∆flgD ∆flgE ∆flgF ∆flgG ∆flgH ∆flgI ∆flgJ ∆flgK ∆flgL ∆flgM ∆flgN ∆flhA ∆flhB ∆flhC ∆flhD ∆flhE ∆fliA ∆fliC ∆fliD ∆fliE ∆fliF ∆fliG ∆fliH ∆fliI ∆fliJ∆eaeH ∆elbA ∆emrE ∆endA ∆essD ∆essQ ∆etp ∆fcl ∆feaB ∆feaR ∆fecA ∆fecB ∆fecC ∆fecD ∆fecE ∆fecI ∆fecR ∆fhuA ∆fhuB ∆fhuC ∆fhuD ∆fimA ∆fimB ∆fimC ∆fimD ∆fimE ∆fimF ∆fimG ∆fimH ∆fimI ∆flgA ∆flgB ∆flgC ∆flgD ∆flgE ∆flgF ∆flgG ∆flgH ∆flgI ∆flgJ ∆flgK ∆flgL ∆flgM ∆flgN ∆flhA ∆flhB ∆flhC ∆flhD ∆flhE ∆fliA ∆fliC ∆fliD ∆fliE ∆fliF ∆fliG ∆fliH ∆fliI ∆fliJ∆fliK ∆fliL ∆fliM ∆fliN ∆fliO ∆fliP ∆fliQ ∆fliR ∆fliS ∆fliT ∆fliY ∆fliZ ∆flu ∆flxA ∆galF ∆gatA ∆gatB ∆gatC ∆gatD ∆gatR ∆gatY ∆gatZ ∆glcA ∆glcB ∆glcC ∆glcD ∆glcE ∆glcF ∆glcG ∆glf ∆gmd ∆gnsB ∆gspA ∆gspC ∆gspD ∆gspE ∆gspF ∆gspG ∆gspH ∆gspI ∆gspJ ∆gspK ∆gspL ∆gspM ∆gspO ∆hokC ∆hokD ∆hokE ∆hsdM ∆hsdR ∆hsdS ∆hslJ ∆iadA ∆icdC ∆ileY ∆insA-1 ∆insA-2 ∆insA-3 ∆insA-4 ∆insA-5 ∆insA-6 ∆insA-7 ∆insB-1 ∆insB-2 ∆insB-3 ∆insB-4 ∆insB-5 ∆insB-6 ∆insB-7 ∆insC-1 ∆insC-2 ∆insC-3∆insC-4 ∆insC-5 ∆insC-6 ∆insD-1 ∆insD-2 ∆insD-3 ∆insD-4∆insD-5 ∆insD-6 ∆insD-7 ∆insE-1 ∆insE-2 ∆insE-3 ∆insE-4 ∆insE-5 ∆insF-1 ∆insF-2 ∆insF-3 ∆insF-4 ∆insF-5 ∆insG ∆insH-1 ∆insH-10 ∆insH-11 ∆insH-2 ∆insH-3 ∆insH-4 ∆insH-5 ∆insH-6 ∆insH-7 ∆insH-8 ∆insH-9 ∆insI-1 ∆insI-2 ∆insI-3 ∆insJ ∆insK ∆insL-1 ∆insL-2 ∆insL-3 ∆insM ∆insN-1 ∆insN-2 ∆insO-1 ∆insO-2 ∆intA ∆intB ∆intD ∆intE ∆intF ∆intG ∆intQ ∆intR ∆intS ∆intZ ∆isrA ∆isrC ∆kil ∆kptA ∆lacA ∆lacI ∆lacY ∆lacZ ∆lar ∆ldhA ∆lit ∆lomR ∆maoC ∆mcrA ∆mcrB ∆mcrC ∆mhpA ∆mhpB ∆mhpC ∆mhpD ∆mhpE ∆mhpF ∆mhpR ∆mhpT ∆micC ∆mmuM∆mmuP ∆mntH ∆mokC ∆motA ∆motB ∆mpaA ∆mppA ∆mrr ∆nfnB ∆nhaA ∆nhaR ∆ninE ∆nmpC ∆nohA ∆nohB ∆nudD ∆nupC ∆ogrK ∆ompN ∆ompT ∆paaA ∆paaB ∆paaC ∆paaD ∆paaE ∆paaF ∆paaG ∆paaH ∆paaI ∆paaJ ∆paaK ∆paaX ∆paaY ∆perR ∆pin ∆pinH ∆pinQ ∆pinR ∆pitB ∆pppA ∆prpB ∆prpC ∆prpD ∆prpE ∆prpR ∆racC ∆racR ∆recE ∆recT ∆relB ∆relE ∆rem ∆renD ∆rfbA ∆rfbB ∆rfbC ∆rfbD ∆rfbX ∆rhsA ∆rhsB ∆rhsC ∆rhsD ∆rhsE ∆rusA ∆ryeE ∆rzoD ∆rzoR ∆rzpD ∆rzpR ∆sbmA ∆sgcA ∆sgcB ∆sgcC ∆sgcE ∆sgcQ ∆sgcR ∆sgcX ∆sieB ∆sokC ∆stfE ∆stfQ ∆stfR ∆tap ∆tar ∆tauA ∆tauB ∆tauC ∆tauD ∆tfaD∆tfaE ∆tfaQ ∆tfaR ∆tfaS ∆trkG ∆tsr ∆tynA ∆uspE ∆uspF ∆wbbH ∆wbbI ∆wbbJ ∆wbbK ∆wbbL ∆wcaA ∆wcaB ∆wcaC ∆wcaD ∆wcaE ∆wcaF ∆wcaI ∆wcaJ ∆wcaK ∆wcaL ∆wcaM ∆wza ∆wzb ∆wzc ∆wzxC ∆yafW ∆yafX ∆yafY ∆yafZ ∆yagA ∆yagB ∆yagE ∆yagF ∆yagG ∆yagH ∆yagI ∆yagJ ∆yagK ∆yagL ∆yagM ∆yagN ∆yagP ∆yagQ ∆yagR ∆yagS ∆yagT ∆yagU ∆yagV ∆yagW ∆yagX ∆yagY ∆yagZ ∆yahA ∆yahB ∆yahC ∆yahD ∆yahE ∆yahF ∆yahG ∆yahH ∆yahI ∆yahJ ∆yahK ∆yahL ∆yahM ∆yahN ∆yahO ∆yaiL ∆yaiO ∆yaiP ∆yaiS ∆yaiT ∆yaiV ∆yaiW ∆yaiX ∆yaiY ∆yaiZ ∆ybbC ∆ybbD ∆ybcC ∆ybcD ∆ybcK ∆ybcL ∆ybcM ∆ybcN ∆ybcO ∆ybcQ ∆ybcS ∆ybcV ∆ybcW ∆ybcY ∆ybdF ∆ybdG ∆ybdJ ∆ybdK ∆ybfB ∆ybfC ∆ybfD ∆ybfL ∆ybfO ∆ybfQ ∆yccC ∆yccZ ∆ycdP ∆ycdQ ∆ycdR ∆ycdS ∆ycdT ∆ycdU ∆ycfK ∆ycgE ∆ycgF ∆ycgG ∆ycgH ∆ycgX ∆ycgZ ∆ycjG ∆ycjY ∆ycjZ ∆ydaC ∆ydaE ∆ydaF ∆ydaG ∆ydaL ∆ydaM ∆ydaN ∆ydaO ∆ydaQ ∆ydaS ∆ydaT ∆ydaU ∆ydaV ∆ydaW ∆ydaY ∆ydbA ∆ydbC ∆ydbD ∆ydbH ∆ydbJ ∆ydbK ∆ydbL ∆ydcC ∆ydcD ∆ydcE ∆yddH ∆ydfA ∆ydfB ∆ydfC ∆ydfD ∆ydfE ∆ydfG ∆ydfH ∆ydfI ∆ydfJ ∆ydfK ∆ydfO ∆ydfP ∆ydfQ ∆ydfR ∆ydfT ∆ydfU ∆ydfV ∆ydfW ∆ydfX ∆ydfZ ∆yeaJ ∆yecC ∆yecS ∆yedD ∆yedE ∆yedF ∆yedK ∆yedL ∆yedM ∆yedN ∆yedO ∆yeeA ∆yeeP ∆yeeR ∆yeeS ∆yeeT ∆yeeU ∆yeeV ∆yeeW ∆yeeX ∆yegP ∆yegQ ∆yegR ∆yegS ∆yegZ ∆yejO ∆yfdG ∆yfdH ∆yfdI ∆yfdK ∆yfdL ∆yfdM ∆yfdN ∆yfdO ∆yfdP∆yfdQ ∆yfdR ∆yfdS ∆yfdT ∆yfeA ∆yfeO ∆yffL ∆yffM ∆yffN ∆yffO ∆yffP ∆yffQ ∆yffR ∆yffS ∆yfjH ∆yfjI ∆yfjJ ∆yfjK ∆yfjL ∆yfjM ∆yfjN ∆yfjO ∆yfjP ∆yfjQ ∆yfjR ∆yfjS ∆yfjT ∆yfjU ∆yfjV ∆yfjW ∆yfjX ∆yfjY ∆yfjZ ∆ygaF ∆ygaQ ∆ygaR ∆ygaT ∆ygeL ∆ygeM ∆ygeN ∆ygeO ∆ygeP ∆ygeQ ∆yghD ∆yghE ∆yghF ∆yghG ∆yghJ ∆yghO ∆yghQ ∆yghR ∆yghS ∆yghT ∆ygiL ∆yhcA ∆yhcD ∆yhcE ∆yhcF ∆yhhH ∆yhhI ∆yhhY ∆yhhZ ∆yhiS ∆yibA ∆yibG ∆yibJ ∆yjgW ∆yjgX ∆yjgZ ∆yjhA ∆yjhB ∆yjhC ∆yjhD ∆yjhE ∆yjhF ∆yjhG ∆yjhH ∆yjhI ∆yjhP ∆yjhQ ∆yjhR ∆yjhS ∆yjhT ∆yjhU ∆yjhV ∆yjhW ∆∆yjiA ∆yjiC ∆yjiD ∆yjiE ∆yjiG ∆yjiH ∆yjiJ ∆yjiK ∆yjiL ∆yjiM ∆yjiN ∆yjiO ∆yjiP ∆yjiQ ∆yjiR ∆yjiS ∆yjiT ∆yjiV ∆yjiW ∆yjiX ∆yjiY ∆yjiZ ∆yjjM ∆yjjN ∆ykfA ∆ykfB ∆ykfC ∆ykfF ∆ykfG ∆ykfH ∆ykfI ∆ykgA ∆ykgB ∆ykgC ∆ykgD ∆ykgE ∆ykgF ∆ykgG ∆ykgH ∆ykgI ∆ykgJ ∆ykgK ∆ykgL ∆ykgM ∆ykgN ∆ykgO ∆ykiB ∆ylbG ∆ylbH ∆ylcE ∆ylcG ∆ymcA ∆ymcB ∆ymcC ∆ymcD ∆ymdE ∆ymfD ∆ymfE ∆ymfG ∆ymfH ∆ymfI ∆ymfJ ∆ymfK ∆ymfL ∆ymfM ∆ymfN ∆ymfO ∆ymfP ∆ymfQ ∆ymfR ∆ymfS ∆ymfT ∆ymgA ∆ymgB ∆ymgC ∆ymgD ∆ymgF ∆ymgG ∆ymjC ∆ynaA ∆ynaE ∆ynaI ∆ynaJ ∆ynaK ∆ynbA ∆ynbB ∆ynbC ∆ynbD ∆ynbE ∆yncI ∆yncM ∆ynfN ∆ynfO ∆ynfP ∆yoeA ∆yoeF ∆ypdJ ∆ypeC ∆ypjA ∆ypjB ∆ypjC ∆ypjF ∆ypjJ ∆ypjK ∆ypjL ∆ypjM ∆yqaC ∆yqaD ∆yqiC ∆yqiG ∆yqiH ∆yqiI ∆yrhA ∆yrhB ∆yrhC |
| **原始文献** | [Pósfai G](https://www.ncbi.nlm.nih.gov/pubmed/?term=P%C3%B3sfai%20G%5BAuthor%5D&cauthor=true&cauthor_uid=16645050). *et.al.* 2006. Emergent properties of reduced-genome Escherichia coli. [*Science.*](https://www.ncbi.nlm.nih.gov/pubmed/16645050?dopt=Abstract) 312(5776):1044-1046. |
| **规格及成分** | 本产品使用塑料袋包装

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| 成分 | 编号 | 规格 | 包装材料 |
| 大肠杆菌MDS42甘油菌 | 2-0005 | 1 mL | 2.0mL红盖管 |
| 使用手册 | 2-0005sc | 1份 | 无 |

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| **运输及保存** | 低温运输，-80℃保种保存，有效期一年。 |
| **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。
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