**Supplementary Table S1.** Bacterial strains and plasmids.

|  |  |  |
| --- | --- | --- |
| **Strain or plasmid** | **Derivation and relevant properties** | **Source or Reference** |
| ***Sinorhizobium fredii*** |  |  |
| NGR234 | *S. fredii* strain isolated from nodules of *Lablab* *purpureus*, RifR | Trinick, 1980 |
| NGRΩ*rhcN* | NGR234 carrying an Omega-interposon insertion in *rhcN* | Viprey *et al*., 1998 |
| NGRΩ*ttsI* | NGR234 carrying an Omega-interposon insertion in *ttsI* | Viprey *et al*., 1998 |
| NGR234-D17  (=NGR234-M) | NGR234 carrying a Tn*5*-Mob insertion in the symbiotic plasmid p*Sf*NGR234a | This work |
| ANU265  (=NGR234C) | pSym-cured derivative of NGR234(RifR) | Morrison *et al*., 1983 |
| ANU265 p*Sf*HH103d::Tn*5*-Mob  (=NGR234C pSymHH103M) | ANU265 transconjugant carrying the symbiotic plasmid p*Sf*HH103d::Tn*5*-Mob | This work |
| HH103 | Wild type strain | Dowdle and Bohlool. 1985 |
| HH103-1 | Spontaneous streptomycin resistant derivative of HH103 | Buendía-Clavería *et al*., 1989a |
| SVQ288 | HH103-1 *rhcJ*::Tn*5*::*lacZ* | Vinardell *et al*., 2004a |
| HH103 RifR  (=SVQ269) | Spontaneous rifampicin resistant derivative of HH103 | Madinabeitia *et al*., 2002 |
| SVQ533 | HH103-RifR carrying an Omega-interposon insertion in *ttsI*. | Lopez-Baena *et al*., 2008 |
| HH103-M | HH103-RifR carrying a Tn*5*-Mob insertion in the symbiotic plasmid p*Sf*HH103d::Tn*5*-Mob, NmR | Vinardell *et al*., 2004b |
| USDA193 | Wild-type strain | Keyser *et al*., 1982 |
| USDA193-StrR-SpcR  (=AB268) | Spontaneous streptomycin and spectinomycin resistant derivative of USDA193 | Buendía-Clavería *et al*., 1989b |
| USDA193C  (=AB359) | USDA193 Strr Spcr cured of the symbiotic plasmid p*Sf*USDA193a::Tn*5*-Mob | Buendía-Clavería *et al*., 1989b |
| USDA193C p*Sf*NGR234a::Tn*5*-Mob  (=USDA193C pSymNGR234M) | USDA193C carrying the symbiotic plasmid p*Sf*NGR234a::Tn*5*-Mob | This work |
| USDA193C p*Sf*HH103d::Tn*5*-Mob  (=USDA193C pSymHH103M) | USDA193C carrying the symbiotic plasmid p*Sf*HH103d::Tn*5*-Mob | Vinardell *et al*., 2004b |
|  |  |  |
| ***Agrobacterium tumefaciens*** |  |  |
| GMI9023 CmR  (=AB274) | CmR RifR StrR pTi-cured derivative of *A. tumefaciens* C58 | Cubo *et al*., 1988 |
|  |  |  |
| ***Bradyrhizobium diazoefficiens*** |  |  |
| USDA110T | Wild type strain, highly effective with different American soybean cultivars | Sadowsky *et al*., 1987; Delamuta *et al*., 2013 |
| ***Bradyrhizobium elkanii*** |  |  |
| USDA76T | Wild type strain, highly effective with different American soybean cultivars | Kuykendall *et al*., 1992 |
| ***Escherichia coli*** |  |  |
| S17-1 | 294 Rec- chromosomally integrated RP4 derivative, TpR StrR | Simon *et al*., 1983 |
| HB101 | Restriction-minus, *recA* background, StrR | Boyer and Roulland-Dossoix, 1969 |
|  |  |  |
| ***Plasmids*** |  |  |
| pRK2013 | ColE1 replicon containing the *tra* genes of RK2, NmR KmR | Figurski and Helinski, 1979 |
| pSUP5011 | pBR325::Tn*5*-Mob | Simon *et al*., 1983 |
| p*Sf*HH103d::Tn*5*-Mob  (= pSymHH103M) | *S. fredii* HH103 symbiotic plasmid carrying a Tn*5*-Mob insertion | Vinardell *et al*., 2004b |
| p*Sf*NGR234a::Tn*5*-Mob  (= pSymNGR234M) | *S. fredii* NGR234 symbiotic plasmid carrying a Tn*5*-Mob insertion | This work |
| pMUS248 | IncQ KmRr plasmid in which the *tet* gene is under the control of the pRL1JI *nodA* promoter | Vinardell *et al*., 1993 |
| pMUS262 | KmS GmR derivative of pMUS248 | Vinardell *et al*., 1993 |

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