Supplementary Material



Supplementary Figure 1. Go analysis and KEGG analysis of metabolic gene demeanor

Table S1. Drug sensitivity of clinical drug-resistant S. flexneri R2448

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Antimicrobial agents | MIC (μg/mL) |  | Sensitivity | Antimicrobial agents | MIC (μg/mL) | Sensitivity |
| Doxycycline | ≥16 |  | R | Cefuroxime | ≥64 | R |
| Amoxicillin-clavulanic acid | 16 |  | I | Minocycline | ≥16 | R |
| Cefalotin | ≥64 |  | R | Amikacin | ≤2 | R |
| Cefepime | 16 |  | R | Cefotetan | ≤4 | R |
| Cefotaxime | ≥64 |  | R | Cefpodoxime | ≥8 | R |
| Ceftazidine | 32 |  | R | Ceftizoxime | 4 | R |
| Cefuroxime | ≥64 |  | R | Ciprofloxacin | ≥4 | R |
| Imipenem | ≤0.25 |  | S | Levofloxacin | ≥8 | R |
| Meropenem | ≤0.25 |  | S | Moxifloxacin | ≥8 | R |
| Nadine | ≥32 |  | R | Norfloxacin | ≥16 | R |
| Piperacillin | ≥128 |  | R | Piperacillin/Tazobactam | 8 | S |
| tetracycline | ≥16 |  | R | Ticarcillin | ≥128 | R |
| Ticarcillin/Clavulanic Acid | ≥128 |  | R | Tobramycin | 8 | R |
| Compound trimethoprim | ≥320 |  | R | Aztreonam | ≥64 | R |
| Cefoperazone/Sulbactam | 32 |  | I | Polymyxin | ≤0.5 | S |
| Tigecycline | 1 |  | S | Donipenem | ≤0.12 | S |

Table S2. Drug sensitivity of clinical drug-resistant S. flexneri RII-1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Antimicrobial agents | MIC (μg/mL) | Sensitivity | Antimicrobial agents | MIC (μg/mL) | Sensitivity |
| Doxycycline | ≥16 | R | Cefuroxime | ≥64 | R |
| Amoxicillin-clavulanic acid | 16 | I | Minocycline | 8 | I |
| Cefalotin | ≥64 | R | Amikacin | ≤2 | R |
| Cefepime | ≥32 | R | Cefotetan | ≤4 | R |
| Cefotaxime | ≥64 | R | Cefpodoxime | ≥8 | R |
| Ceftazidine | ≥64 | R | Ceftizoxime | 4 | R |
| Cefuroxime | ≥64 | R | Ciprofloxacin | ≥4 | R |
| Imipenem | ≤0.25 | S | Levofloxacin | ≥8 | R |
| Meropenem | ≤0.25 | S | Moxifloxacin | ≥8 | R |
| Nadine | ≥32 | R | Norfloxacin | ≥16 | R |
| Piperacillin | ≥128 | R | Piperacillin/Tazobactam | 64 | I |
| tetracycline | ≥16 | R | Ticarcillin | ≥128 | R |
| Ticarcillin/Clavulanic Acid | ≥128 | R | Tobramycin | 8 | R |
| Compound trimethoprim | ≥320 | R | Aztreonam | ≥64 | R |
| Cefoperazone/Sulbactam | 32 | I | Polymyxin | ≤0.5 | S |
| Tigecycline | ≤0.5 | S | Donipenem | ≤0.12 | S |

Table S3. The criterion for judging the histological injury score.

|  |  |  |  |
| --- | --- | --- | --- |
| Score | Inflammatory cell infiltration | Crypt damage | The absence of oedema |
| 0 | None | None | None |
| 1 | Infiltration around the crypt base | Basal 1/3 damaged | Oedema |
| 2 | Infiltration reaching the muscularis mucosae | Basal 2/3 damaged |  |
| 3 | Extensive infiltration reaching the muscularis mucosae and thickening of the mucosa with severe oedema | Only surface epithelium intact |  |
| 4 | Infiltration of the submucosa | Entire crypt and epithelium lost |  |

Table S4. Abbreviations of ROS-related genes analysed using transcriptome sequencing

|  |  |
| --- | --- |
| ompA | outer membrane protein A |
| gshA | glutamate-cysteine ligase |
| bssR | regulator of biofilm formation |
| elaB | tail anchored inner membrane protein |
| alkB | DNA oxidative demethylase |
| grxA | reduced glutaredoxin 1 |
| nth | endonuclease III |
| relB | DNA-binding transcriptional repressor |
| nuoF | NADH:quinone oxidoreductase subunit F |
| copA | Cu(+) exporting P-type ATPase |
| htrA | serine protease |
| soxS | DNA-binding transcriptional dual regulator |
| hha | haemolysin expression modulating protein |