## Neisseria gonorrhoeae antibiotic resistance panel

### Literature references

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<th>Gene</th>
<th>Mutation / Marker</th>
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<tr>
<td>penA</td>
<td>Asp345A, G545S</td>
<td>Mutations in penA gene can confer resistance to penicillin and cephalosporin in <em>Neisseria gonorrhoeae</em>.</td>
<td>(2), (3), (20)</td>
</tr>
<tr>
<td>gyrA</td>
<td>S91P, D95A, D95G, D95N, S91Y, S91F, D95Y</td>
<td>Mutations in gyrA gene can confer resistance to ciprofloxacin in <em>Neisseria gonorrhoeae</em>.</td>
<td>(4), (5), (6), (21), (23)</td>
</tr>
<tr>
<td>parC</td>
<td>D86N, S87R, S87N, S88P, E91K, E91G</td>
<td>Mutations in parC gene can confer resistance to ciprofloxacin in <em>Neisseria gonorrhoeae</em>.</td>
<td>(4), (6), (21), (22), (23)</td>
</tr>
<tr>
<td>ponA</td>
<td>L421P</td>
<td>Mutations in ponA gene can confer resistance to penicillin in <em>Neisseria gonorrhoeae</em>.</td>
<td>(17), (18)</td>
</tr>
<tr>
<td>penB (porB)</td>
<td>G120D, G120K, A121D, A121S, A121G</td>
<td>Mutations in penB (porB) gene can confer resistance to penicillin and tetracycline in <em>Neisseria gonorrhoeae</em>.</td>
<td>(10), (13), (14)</td>
</tr>
<tr>
<td>mtrR</td>
<td>G45D, G45S, -35delA, -10insTT</td>
<td>Mutations in mtrR gene can confer resistance to penicillin, ciprofloxacin, tetracycline, and azithromycin in <em>Neisseria gonorrhoeae</em>.</td>
<td>(7), (9), (10), (19), (25), (26)</td>
</tr>
<tr>
<td>tetM</td>
<td>tetM</td>
<td>Presence of tetM gene can confer resistance to tetracycline in <em>Neisseria gonorrhoeae</em>.</td>
<td>(12), (16), (19), (24)</td>
</tr>
<tr>
<td>rpsJ</td>
<td>V57M</td>
<td>Mutations in rpsJ gene can confer resistance to tetracycline resistance in <em>Neisseria gonorrhoeae</em>.</td>
<td>(10), (19)</td>
</tr>
<tr>
<td>bla</td>
<td>bla</td>
<td>Presence of bla gene can confer resistance to penicillin in <em>Neisseria gonorrhoeae</em>.</td>
<td>(1), (8), (15)</td>
</tr>
<tr>
<td>16s rRNA</td>
<td>G1064C, C1192U</td>
<td>Mutations in 16s rRNA gene can confer resistance to spectinomycin in <em>Neisseria gonorrhoeae</em>.</td>
<td>(11)</td>
</tr>
</tbody>
</table>


to antimicrobial hydrophobic agents is modulated by the mtrRCDE efflux system. Microbiol. 1995 Mar;141(3):611-22.


This test was developed and its performance characteristics determined by this laboratory. It has not been cleared or approved by the Food and Drug Administration (FDA). The FDA has determined that such clearance or approval is not necessary. This test is used for clinical purposes. It should not be regarded as investigational or for research. The laboratory is regulated by the Clinical Laboratory Improvement Act of 1988.