

TABLE 1

Requirement of Iron for Maximal Growth of Some Bacteria

| Organism ¹ | Added iron μg/ml | Special conditions | Deferration of medium by: | Ref. |
|--|---------------------|--|---|--------------|
| <i>Aerobacter aerogenes</i> | 0.02 | | Oxine | 239 |
| <i>Klebsiella pneumoniae</i> | 0.03 | | Oxine | 239 |
| <i>Escherichia coli</i> | 0.03 | | Oxine | 239 |
| <i>E. coli</i> strain 18 | 2.0 | (Linear to 0.035) | Alumina | 189 |
| <i>E. coli</i> B/r | 0.085 | | Oxine | 234 |
| <i>Shigella dysenteriae</i> | 0.1 | | Oxine | 225 |
| <i>Salmonella typhimurium</i> | 0.06 | | Mg(SO ₄)· 7H ₂ O | 250 |
| <i>Vibrio cholerae</i> ("classical" and biotype <i>el tor</i>) | 0.02 | | Alumina | 94 |
| <i>Pseudomonas aeruginosa</i> | 0.085 | | Oxine | 239 |
| <i>Pseudomonas</i> sp. | 0.1 | 20°C | None | 73 |
| | 3.0 | 28°C | None | |
| <i>Alkaligenes fecalis</i> 19018 | 0.08 | | Chelex 100 | ² |
| <i>Azotobacter vinelandii</i> | 1.0 | N ₂ or NH ₄ ⁺ | Oxine | 68 |
| <i>Brucella suis</i> | 0.03–0.1 | | Oxine | 237 |
| <i>Rhizobium trifolii</i> | 0.06 | | CaSO ₄ | 116 |
| <i>Corynebacterium diphtheriae</i> | ca. 1.0 | | Ca ₃ (PO ₄) ₂ | 137 |
| <i>Nocardia opaca</i> | 0.2 | | Alumina | 242 |
| <i>Mycobacterium smegmatis</i> | ca. 2.0; 0.5 | | Alumina | 253; 187 |
| <i>Mycobacterium phlei</i> | 0.2–0.3 | | None | 4 |
| <i>Listeria monocytogenes</i> | 100.0 | | Oxine | 215 |
| <i>Bacillus megaterium</i> | 0.02–0.04 | Tubes, shaken | Alumina | 223 |
| | 0.02–0.04 | Tubes, shaken | Chelex 100 | |
| | 0.1–0.2 | Flasks, shaken | Chelex 100 | ³ |
| <i>Clostridium tetani</i> | 0.05 | | Not stated | 69 |
| <i>Clostridium perfringens</i> | 0.6; 1.0; 2.0 | | Several | 160; 15; 203 |
| <i>Clostridium pasteurianum</i> | 2.0 (1.0); 8.8 | N ₂ , (NH ₄ ⁺) | None | 39; 102 |
| <i>Clostridium septicum</i> | 1.0 | | None | 18 |

¹ Only wild-type strains listed. Mutants with altered requirements will be considered later.

² M. N. Guentzel, unpublished.

³ 300 ml medium in 2,800 Fernbach flasks, K. G. Todar, unpublished.