





Comparative Formulation

Glasgow's Minimum Essential Medium

|  Powdered Media | GMP01 | GMP02 | GMP03 | GMP04 | GMP05 |
|---|----------|----------|----------|----------|----------|
| Amino Acids | mg/L | mg/L | mg/L | mg/L | mg/L |
| L-Arginine, Hydrochloride | 42.0000 | 42.0000 | 42.0000 | 42.0000 | 37.8000 |
| L-Cystine | | | | | 21.6000 |
| L-Cystine, Dihydrochloride | 31.0000 | 31.0000 | 31.0000 | 31.0000 | |
| L-Glutamine | 292.0000 | 292.0000 | 550.0000 | 292.0000 | 262.8000 |
| L-Histidine, Hydrochloride, Monohydrate | 21.0000 | 21.0000 | 21.0000 | 21.0000 | 18.9000 |
| L-Isoleucine | 52.0000 | 52.0000 | 52.0000 | 52.0000 | 47.1600 |
| L-Leucine | 52.0000 | 52.0000 | 52.0000 | 52.0000 | 47.1600 |
| L-Lysine, Hydrochloride | 73.0000 | 73.0000 | 73.0000 | 73.0000 | 65.7900 |
| L-Methionine | 15.0000 | 15.0000 | 15.0000 | 15.0000 | 13.5000 |
| L-Phenylalanine | 33.0000 | 33.0000 | 33.0000 | 33.0000 | 29.7000 |
| L-Threonine | 47.6000 | 47.6000 | 47.6000 | 47.6000 | 42.8400 |
| L-Tryptophan | 8.0000 | 8.0000 | 8.0000 | 8.0000 | 7.2000 |
| L-Tyrosine, Disodium, Dihydrate | 52.0000 | 52.0000 | 52.0000 | 52.0000 | 46.8780 |
| L-Valine | 46.8000 | 46.8000 | 46.8000 | 46.8000 | 42.1200 |

|  Powdered Media | GMP01 | GMP02 | GMP03 | GMP04 | GMP05 |
|--|-----------|-----------|-----------|-----------|-----------|
| Inorganic Salts | mg/L | mg/L | mg/L | mg/L | mg/L |
| Calcium Chloride, Anhydrous | 200.0000 | 200.0000 | 200.0000 | 200.0000 | 179.9940 |
| Ferric Nitrate, Nonahydrate | 0.1000 | 0.1000 | 0.1000 | 0.1000 | 0.0900 |
| Magnesium Sulfate, Anhydrous | 97.6700 | 97.7200 | 97.6700 | 97.7200 | 125.6400 |
| Potassium Chloride | 400.0000 | 400.0000 | 400.0000 | 400.0000 | 360.0000 |
| Sodium Chloride | 6400.0000 | 6900.0000 | 7044.0700 | 7069.4902 | 6260.0000 |
| Sodium Phosphate Dibasic, Anhydrous | | 250.0000 | 322.0300 | 334.7500 | 250.0000 |
| Sodium Phosphate, Monobasic, Monohydrate | 124.0000 | 125.3600 | 124.0000 | 124.0000 | 111.6000 |
| Other Components | mg/L | mg/L | mg/L | mg/L | mg/L |
| Casein Digest Peptone (Tryptone) | | 2000.0000 | 2576.2700 | 2677.9700 | 1000.0000 |
| D-Glucose, Anhydrous | 4500.0000 | 4700.0000 | 4757.6300 | 4767.8000 | 4250.0000 |
| Meat Peptone | | | | | 500.0000 |
| Phenol Red, Sodium Salt | 15.0000 | 15.0000 | 15.0000 | 15.0000 | 13.5000 |
| Yeast Extract | | | | | 500.0000 |
| Vitamins | mg/L | mg/L | mg/L | mg/L | mg/L |
| Choline Chloride | 2.0000 | 2.0000 | 2.0000 | 2.0000 | 1.8000 |
| D-Calcium Pantothenate | 2.0000 | 2.0000 | 2.0000 | 2.0000 | 1.8000 |
| Folic Acid | 2.0000 | 2.0000 | 2.0000 | 2.0000 | 1.8000 |
| Myo-Inositol | 3.6000 | 3.6000 | 3.6000 | 3.6000 | 3.2400 |
| Niacinamide | 2.0000 | 2.0000 | 2.0000 | 2.0000 | 1.8000 |
| Pyridoxal, Hydrochloride | 2.0000 | 2.0000 | 2.0000 | 2.0000 | 1.8000 |
| Riboflavin | 0.2000 | 0.2000 | 0.2000 | 0.2000 | 0.1800 |
| Thiamine, Hydrochloride | 2.0000 | 2.0000 | 2.0000 | 2.0000 | 1.8000 |

|  Liquid Media | GML01 | GML02 |
|---|-------------|-------------|
| Amino Acids | mg/L | mg/L |
| L-Arginine, Hydrochloride | 42.0000 | 42.0000 |
| L-Cystine, Dihydrochloride | 31.0000 | 31.0000 |
| L-Glutamine | 292.0000 | |
| L-Histidine, Hydrochloride, Monohydrate | 21.0000 | 21.0000 |
| L-Isoleucine | 52.0000 | 52.0000 |
| L-Leucine | 52.0000 | 52.0000 |
| L-Lysine, Hydrochloride | 73.0000 | 73.0000 |
| L-Methionine | 15.0000 | 15.0000 |
| L-Phenylalanine | 33.0000 | 33.0000 |
| L-Threonine | 47.6000 | 47.6000 |
| L-Tryptophan | 8.0000 | 8.0000 |
| L-Tyrosine, Disodium, Dihydrate | 52.0000 | 52.0000 |
| L-Valine | 46.8000 | 46.8000 |
| Inorganic Salts | mg/L | mg/L |
| Calcium Chloride, Anhydrous | 200.0000 | 200.0000 |
| Ferric Nitrate, Nonahydrate | 0.1000 | 0.1000 |
| Magnesium Sulfate, Anhydrous | 97.6700 | 97.7200 |
| Potassium Chloride | 400.0000 | 400.0000 |
| Sodium Bicarbonate | 2750.0000 | 2750.0000 |
| Sodium Chloride | 6400.0000 | 6900.0000 |
| Sodium Phosphate Dibasic, Anhydrous | | 250.0000 |
| Sodium Phosphate, Monobasic, Monohydrate | 124.0000 | 125.3600 |
| Other Components | mg/L | mg/L |
| Casein Digest Peptone (Tryptone) | | 2000.0000 |
| D-Glucose, Anhydrous | 4500.0000 | 4700.0000 |
| Phenol Red, Sodium Salt | 15.0000 | 15.0000 |



Liquid Media

GML01

GML02

Vitamins

mg/L

mg/L

Choline Chloride

2.0000

2.0000

D-Calcium Pantothenate

2.0000

2.0000

Folic Acid

2.0000

2.0000

Myo-Inositol

3.6000

3.6000

Niacinamide

2.0000

2.0000

Pyridoxal, Hydrochloride

2.0000

2.0000

Riboflavin

0.2000

0.2000

Thiamine, Hydrochloride

2.0000

2.0000