

## DMEM/F-12

**Product Number DFP19-10X1LT**  
**With L-glutamine. No sodium bicarbonate.**

Components	mg/L
Biotin (C <sub>10</sub> H <sub>16</sub> N <sub>2</sub> O <sub>3</sub> S)	0.0030
Calcium Chloride, Anhydrous (CaCl <sub>2</sub> )	116.6000
Choline Chloride	8.9800
Cupric Sulfate, Pentahydrate (CuSO <sub>4</sub> · 5H <sub>2</sub> O)	0.0010
D-Calcium Pantothenate (C <sub>18</sub> H <sub>32</sub> CaN <sub>2</sub> O <sub>10</sub> )	2.2400
D-Glucose, Anhydrous (C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> )	3151.0000
Ferric Nitrate, Nonahydrate (Fe(NO <sub>3</sub> ) <sub>3</sub> ·9H <sub>2</sub> O)	0.0500
Ferrous Sulfate, Heptahydrate (FeSO <sub>4</sub> ·7H <sub>2</sub> O)	0.4170
Folic Acid (C <sub>19</sub> H <sub>19</sub> N <sub>7</sub> O <sub>6</sub> )	2.6500
Glycine (C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub> )	18.7500
Hypoxanthine, Sodium (C <sub>5</sub> H <sub>3</sub> N <sub>4</sub> O·Na)	2.3900
L-Alanine (C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub> )	4.4500
L-Arginine, Hydrochloride (C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub> · HCl)	147.5000
L-Asparagine, Monohydrate (C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub> · H <sub>2</sub> O)	7.5000
L-Aspartic Acid (C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub> )	6.6500
L-Cysteine, Hydrochloride, Monohydrate (C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub> · HCl · H <sub>2</sub> O)	17.5600
L-Cystine, Dihydrochloride (C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub> · 2HCl)	31.2900
L-Glutamic Acid (C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub> )	7.3500
L-Glutamine (C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub> )	365.0000
L-Histidine, Hydrochloride, Monohydrate (C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub> · HCl · H <sub>2</sub> O)	31.4800
L-Isoleucine (C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub> )	54.4700
L-Leucine (C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub> )	59.0500
L-Lysine, Hydrochloride (C <sub>6</sub> H <sub>14</sub> N <sub>2</sub> O <sub>2</sub> · HCl)	91.2500

L-Methionine (C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> S)	17.2400
L-Phenylalanine (C <sub>9</sub> H <sub>11</sub> NO <sub>2</sub> )	35.4800
L-Proline (C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub> )	17.2500
L-Serine (C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub> )	26.2500
L-Threonine (C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub> )	53.4500
L-Tryptophan (C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub> )	9.0200
L-Tyrosine, Disodium, Dihydrate (C <sub>9</sub> H <sub>9</sub> NO <sub>3</sub> Na <sub>2</sub> ·2H <sub>2</sub> O)	55.7900
L-Valine (C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> )	52.8500
Linoleic Acid (C <sub>18</sub> H <sub>32</sub> O <sub>2</sub> )	0.0420
Lipoic Acid (DL-Thiolic Acid) (C <sub>8</sub> H <sub>14</sub> O <sub>2</sub> S <sub>2</sub> )	0.1050
Magnesium Chloride, Anhydrous (MgC <sub>2</sub> )	28.6100
Magnesium Sulfate, Anhydrous (MgSO <sub>4</sub> )	48.9300
Myo-Inositol (C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> )	12.6000
Niacinamide (C <sub>6</sub> H <sub>6</sub> N <sub>2</sub> O)	2.0200
Phenol Red, Sodium Salt (C <sub>19</sub> H <sub>13</sub> NaO <sub>5</sub> S)	8.1000
Potassium Chloride (KCl)	311.8000
Putrescine, Dihydrochloride (C <sub>4</sub> H <sub>12</sub> N <sub>2</sub> ·2HCl)	0.0810
Pyridoxine, Hydrochloride (C <sub>8</sub> H <sub>11</sub> NO <sub>3</sub> · HCl)	2.0310
Pyruvic Acid, Sodium Salt (C <sub>3</sub> H <sub>3</sub> NaO <sub>3</sub> )	55.0000
Riboflavin (C <sub>17</sub> H <sub>20</sub> N <sub>4</sub> O <sub>6</sub> )	0.2190
Sodium Chloride (NaCl)	6995.5000
Sodium Phosphate Dibasic, Anhydrous (Na <sub>2</sub> HPO <sub>4</sub> )	70.9600
Sodium Phosphate, Monobasic, Monohydrate (NaH <sub>2</sub> PO <sub>4</sub> · H <sub>2</sub> O)	62.5000
Thiamine, Hydrochloride (C <sub>12</sub> H <sub>17</sub> ClN <sub>4</sub> OS · HCl)	2.1700
Thymidine (C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> O <sub>5</sub> )	0.3650
Vitamin B12 (C <sub>63</sub> H <sub>88</sub> CoN <sub>14</sub> O <sub>14</sub> P)	0.6800
Zinc Sulfate, Heptahydrate (ZnSO <sub>4</sub> ·7H <sub>2</sub> O)	0.4320