

### ★ Storage

Store at 2 -8°C.

### ✈ Contents

- Product Manual
- MCDB 131 Media

ALL PRODUCTS SOLD BY GenDEPOT ARE INTENDED FOR RESEARCH USE ONLY UNLESS OTHERWISE INDICATED. THIS PRODUCT IS NOT INTENDED FOR DIAGNOSTIC OR DRUG PURPOSE

### ★ Shipping Condition

Ship at ambient

### ★ Introduction

MCDB 131 Medium was originally developed by Knedler and Ham as reduced serum-supplemented medium for the culture of human microvascular endothelial cells (HMVEC). MCDB 131 Medium is also used with other cell types, including human omental microvascular cells, hepatocytes, myocytes, and smooth muscle cells.

MCDB 131 Medium contains many components not found in traditional basal media, such as trace elements, putrescine, adenine, thymidine, and higher levels of some amino acids and vitamins. These additions allow the medium to be supplemented with very low levels of serum or defined components. MCDB 131 Medium contains no proteins or growth factors, and is often supplemented with EGF, hydrocortisone, glutamine, and low levels of Fetal Bovine Serum (FBS). The FBS concentration must be optimized for each cell type.

### ★ Formulation

Amino Acids	mg/L
Glycine (C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub> )	2.25
L-Alanine(C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub> )	2.67
L-Arginine, Hydrochloride(C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub> .HCl)	63.20
L-Asparagine, Anhydrous(C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub> )	15.01
L-Aspartic Acid(C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub> )	13.31
L-Cystine, Dihydrochloride(C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub> S <sub>2</sub> .2HCl)	35.13
L-Glutamic Acid(C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub> )	4.41
L-Histidine(C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub> .HCl.H <sub>2</sub> O)	41.93
L-Isoleucine(C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub> )	65.58
L-Leucine(C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub> )	131.27
L-Lysine, Hydrochloride(C <sub>6</sub> H <sub>14</sub> N <sub>2</sub> O <sub>2</sub> .HCl)	181.65
L-Methionine(C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> S)	14.92

Amino Acids	mg/L
L-Phenylalanine(C <sub>9</sub> H <sub>11</sub> NO <sub>2</sub> )	33.04
L-Proline(C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub> )	11.51
L-Serine(C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub> )	31.53
L-Threonine(C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub> )	17.90
L-Tryptophan(C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub> )	3.10
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)	26.20
L-Valine(C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> )	17.60

Inorganic Salts	mg/L
Ammonium Metavanadate(NH <sub>4</sub> VO <sub>3</sub> )	0.0006
Calcium Chloride, Anhydrous (CaCl <sub>2</sub> )	235.23
Cupric Sulfate, Pentahydrate(CuSO <sub>4</sub> .5H <sub>2</sub> O)	0.0013
Ferrous Sulfate, Heptahydrate(FeSO <sub>4</sub> .7H <sub>2</sub> O)	0.278
Magnesium Sulfate, Anhydrous(MgSO <sub>4</sub> )	1203.26
Manganese Sulfate, Monohydrate(MnSO <sub>4</sub> .H <sub>2</sub> O)	0.0002
Molybdic Acid, Hexaammonium Salt((NH <sub>4</sub> ) <sub>6</sub> Mo <sub>7</sub> O <sub>24</sub> .4H <sub>2</sub> O)	0.0037
Nickel Chloride, Hexahydrate(NiCl <sub>2</sub> .6H <sub>2</sub> O)	0.0001
Potassium Chloride(KCl)	298.20
Selenious Acid(H <sub>2</sub> SeO <sub>3</sub> )	0.0039
Sodium Bicarbonate(NaHCO <sub>3</sub> )	1176.00
Sodium Chloride(NaCl)	6430.00
Sodium Metasilicate, Nonahydrate(Na <sub>2</sub> SiO <sub>3</sub> .9H <sub>2</sub> O)	2.8420
Sodium Phosphate, Dibasic, Anhydrous(Na <sub>2</sub> HPO <sub>4</sub> )	90.983
Zinc Sulfate, Heptahydrate(ZnSO <sub>4</sub> .7H <sub>2</sub> O)	0.0003

Vitamins	mg/L
Biotin(C <sub>10</sub> H <sub>16</sub> N <sub>2</sub> O <sub>5</sub> S)	0.0073
Choline Chloride(C <sub>5</sub> H <sub>14</sub> ClNO)	13.96
D-Calcium Pantothenate(C <sub>18</sub> H <sub>32</sub> CaN <sub>2</sub> O <sub>10</sub> )	11.91
Folic Acid(C <sub>19</sub> H <sub>19</sub> N <sub>7</sub> O <sub>6</sub> )	0.602
Myo-Inositol(C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> )	7.21
Niacinamide(C <sub>6</sub> H <sub>6</sub> N <sub>2</sub> O)	6.11
Pyridoxine, Hydrochloride(C <sub>8</sub> H <sub>11</sub> NO <sub>3</sub> .HCl)	2.056
Riboflavin(C <sub>17</sub> H <sub>20</sub> N <sub>4</sub> O <sub>6</sub> )	0.0038
Thiamine, Hydrochloride(C <sub>12</sub> H <sub>17</sub> ClN <sub>4</sub> OS.HCl)	3.373
Vitamin B12(C <sub>63</sub> H <sub>88</sub> CoN <sub>14</sub> O <sub>14</sub> P)	0.0136

Other Components	mg/L
Adenine, Hydrochloride(C <sub>5</sub> H <sub>5</sub> N <sub>5</sub> .HCl)	0.1715
D-Glucose(C <sub>6</sub> H <sub>12</sub> O <sub>6</sub> )	
Lipoic Acid(DL-Thiolic Acid)(C <sub>8</sub> H <sub>14</sub> O <sub>2</sub> S <sub>2</sub> )	0.0021
Phenol Red, Sodium Salt(C <sub>19</sub> H <sub>13</sub> NaO <sub>5</sub> S)	
Putrescine, Dihydrochloride(C <sub>4</sub> H <sub>12</sub> N <sub>2</sub> .2HCl)	0.0002
Pyruvic Acid, Sodium Salt(C <sub>3</sub> H <sub>3</sub> NaO <sub>3</sub> )	110.04
Thymidine(C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> O <sub>5</sub> )	0.0242