

## MCDB 131 Medium

*With Low Glucose, Sodium Pyruvate, and phenol red*

**Catalog**  
TBS8076-500ML

**Unit Size**  
500 mL

### DESCRIPTION

MCDB 131 Medium is a specialized cell culture medium originally formulated by Knedler and Ham to support the growth of human microvascular endothelial cells (HMVECs) under reduced serum conditions. 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.

MEDB131 Medium has been adapted for use with various mammalian cell types, including hepatocytes, myocytes, smooth muscle cells, and human omental microvascular cells.

### COMPOSITION

- No L-glutamine
- No HEPES
- Contains Sodium Pyruvate
- Contains Phenol Red
- Contains Sodium Bicarbonate
- Contains trace elements, putrescine, adenine, thymidine
- Contains low glucose

### FORM

Liquid

### PACK SIZE

1x 500mL/bottle,  
Store at 2-8°C stable for 12 months.  
pH: 7.2 - 7.7

### APPLICATION

Used as a component of the basal medium to culture human microvascular endothelial cells (HMVEC), human omental microvascular cells, hepatocytes, myocytes, and smooth muscle cells.

### RELATED PRODUCTS

MSC Medium (TBS8021)  
DMEM Medium (TBS8061)  
Chondrogenic Differentiation Medium (TBS8062)  
RPMI16040 Medium (TBS8063)  
Hybridoma Growth Medium (TBS8074)  
DMEM-F12 Mixture (TBS8083)  
F12K Medium (TBS8032K)  
F12 Medium (TBS8032)  
F10 Medium (TBS8033)  
ESC/iPSC-qualified FBS (TBS8002)  
Adipocyte Differentiation Cocktail (TBS8017)  
0.1% Gelatin Solution (TBS8004)  
2x HBS, pH7.05 (TBS5076)  
Cell Culture Grad Water (TBS5050)  
LB Medium (TBS8056)  
SOB Medium (TBS8057)  
SOC Broth Medium (TBS8058)  
2xYT Broth Medium (TBS8059)  
MCDB153 Medium (TBS8034)

## MCDB 131 Medium

### MCDB 131 Medium Formulation (TBS8076)

Components	Concentration (mg/L)		
		Sodium Bicarbonate (NaHCO <sub>3</sub> )	1176.0
		Sodium Chloride (NaCl)	6430.0
		Sodium Meta Silicate Na <sub>2</sub> SiO <sub>3</sub> 9H <sub>2</sub> O	2.8
		Sodium Phosphate dibasic (Na <sub>2</sub> HPO <sub>4</sub> -7H <sub>2</sub> O)	134.0
		Zinc Sulfate (ZnSO <sub>4</sub> -H <sub>2</sub> O)	3.0E-4
		Adenine	0.135
		D-Glucose (Dextrose)	1000.0
		Lipoic Acid	0.0021
		Phenol Red	12.4
		Putrescine 2HCl	2.0E-4
		Sodium Pyruvate	110.0
		Thymidine	0.024
Glycine	2.3		
L-Alanine	2.7		
L-Arginine hydrochloride	63.2		
L-Asparagine-H <sub>2</sub> O	15.0		
L-Aspartic acid	13.3		
L-Cysteine 2HCl. H <sub>2</sub> O	35.0		
L-Glutamic Acid	4.4		
L-Histidine hydrochloride-H <sub>2</sub> O	42.0		
L-Isoleucine	66.0		
L-Leucine	131.0		
L-Lysine hydrochloride	182.0		
L-Methionine	15.0		
L-Phenylalanine	33.0		
L-Proline	11.5		
L-Serine	32.0		
L-Threonine	12.0		
L-Tryptophan	4.1		
L-Tyrosine	18.1		
L-Valine	117.0		
Biotin	0.0073		
Choline chloride	14.0		
D-Calcium pantothenate	12.0		
Folic Acid Calcium salt	0.6		
Niacinamide	6.1		
Pyridoxine hydrochloride	2.1		
Riboflavin	0.0038		
Thiamine hydrochloride	3.4		
Vitamin B12	0.0136		
i-Inositol	7.2		
Ammonium Molybdate ((NH <sub>4</sub> ) <sub>6</sub> Mo <sub>7</sub> O <sub>24</sub> -4H <sub>2</sub> O)	0.0037		
Ammonium metavanadate (NH <sub>4</sub> VO <sub>3</sub> )	6.0E-4		
Calcium Chloride (CaCl <sub>2</sub> -2H <sub>2</sub> O)	235.0		
Cupric sulfate (CuSO <sub>4</sub> -5H <sub>2</sub> O)	0.0012		
Ferric sulfate (FeSO <sub>4</sub> -7H <sub>2</sub> O)	0.283		
Magnesium Sulfate (MgSO <sub>4</sub> -7H <sub>2</sub> O)	2464.0		
Manganese Sulfate (MnSO <sub>4</sub> -H <sub>2</sub> O)	2.0E-4		
Nickelous Chloride NiCl <sub>2</sub> 6H <sub>2</sub> O	7.1E-5		
Potassium Chloride (KCl)	298.0		
Selenious Acid H <sub>2</sub> SeO <sub>3</sub>	0.0038		