

Supplemental Materials and Methods

Basal medium for “low” calcium medium formulation for monkey RPE cells:

Calcium-free DMEM (Gibco) / KBM gold (Lonza #195130), 1:1

Basal medium for “high” calcium medium formulation:

DMEM with HEPES (Sigma)/ Calcium-free DMEM (Gibco) / KBM gold (Lonza), 5:4:9

Supplemental components in both media:

TAPSO (Sigma-Aldrich)

Bovine Calf Serum (Lonza)

Vitamin E acetate (Sigma)

Linoleic acid (Cayman Chemical), complexed with Bovine Serum Albumin (Sigma)

Transferrin (Sigma)

LONG R³IGF-1 (Sigma)

Oxalacetic Acid (Sigma)

Sodium pyruvate (Sigma)

Glucose (Sigma)

Fructose (Sigma)

Glucosamine (Sigma)

Sodium glucuronate (Sigma)

Gluconolactone (Sigma)

Lactose (Sigma)

Galactose (Sigma)

Fucose (Sigma)

Non-essential amino acids (Sigma)

Taurine (Sigma)

Heparin (Sigma)

Thiamine (Santa Cruz Biotechnology)

Hypoxanthine (Sigma)

Uridine (Sigma)

Alanyl-glutamine (Sigma)

Hydrocortisone (Sigma), complexed with hydroxypropyl- β -cyclodextrin (Sigma)

Triiodothyronine (Sigma)

Carnitine tartrate (LKT Labs)

Glutathione SH (Sigma)

Progesterone, soluble (Sigma)

Retinyl acetate, soluble (Sigma)

Ascorbic acid PO₄ (Wako Chemical)

Putrescine (Sigma)

Thioglycerol (Sigma)

Calcium chloride (Sigma)

Extract of bovine retinas (Animal Technologies; final added protein concentrations:

10 μ g/ml [low calcium]; 5 μ g/ml [high calcium])