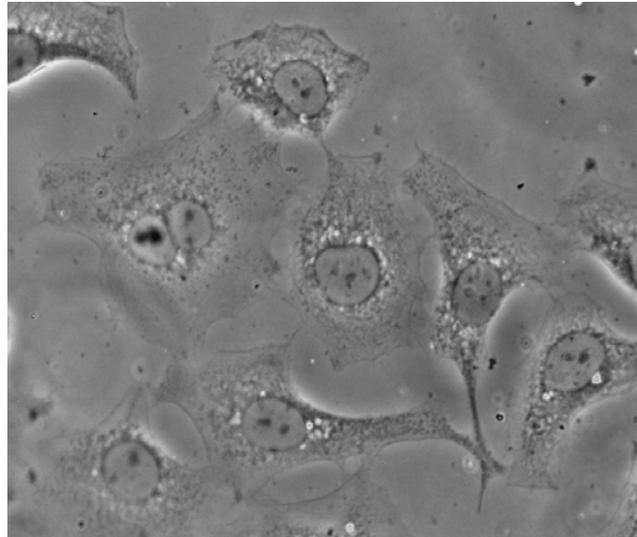




CELL CULTURE OF OCULAR TISSUES-DERIVED CELL LINES

IOBA Normal Conjunctival Epithelial (IOBA-NHC) Cell Line



Reference:

Diebold Y, Calonge M, Enríquez de Salamanca A, Callejo S, Corrales RM, Sáez V, Siemasko KF, Stern ME. Characterization of a spontaneously immortalized cell line (IOBA-NHC) from normal human conjunctiva. Invest Ophthalmol Vis Sci. 2003; 44 :4263–4274.

Characteristics:

The IOBA-NHC cell line is derived from normal human conjunctival epithelial cells that were spontaneously immortalized.

Positive for diverse cykokeratins, mucins, and e-cadherin.

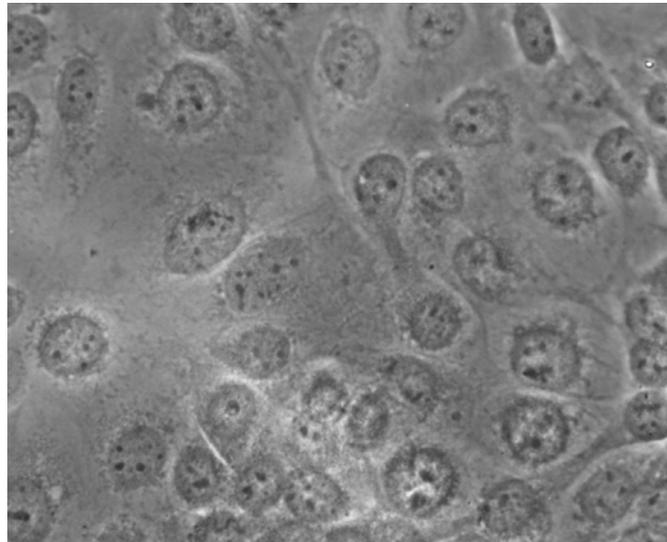
Culture conditions:

Dulbecco's Modified Essential Medium/F-12 mixture (DMEM/F-12) with GlutaMAX™-I supplemented with 10% fetal bovine serum (FBS), 1µg/mL bovine pancreas insulin, 2ng/mL mouse epidermal growth factor (EGF), 5µg/mL hydrocortisone, 50U/mL penicillin, 50µg/mL streptomycin, and 2.5µg/mL fungizone.

Cells are maintained at 37° C in a 5% CO₂ atmosphere. Culture medium needs to be changed every 2-3 days. Usually, 7-8 mL fresh medium is added (25 cm² flask).



Human Corneal Epithelial (HCE) Cell Line



Reference:

Araki-Sasaki, K., Ohashi, Y., Sasabe, T., Hayashi, K., Watanabe, H., Tano, Y., Handa, H. An SV40-immortalized human corneal epithelial cell line and its characterization. Invest Ophthalmol Vis Sci. 1995; 36: 614-621.

Characteristics:

The HCE cell line is derived from normal human corneal epithelial cells that were immortalized by using SV-40.

Positive for diverse cytokeratines, and e-cadherin.

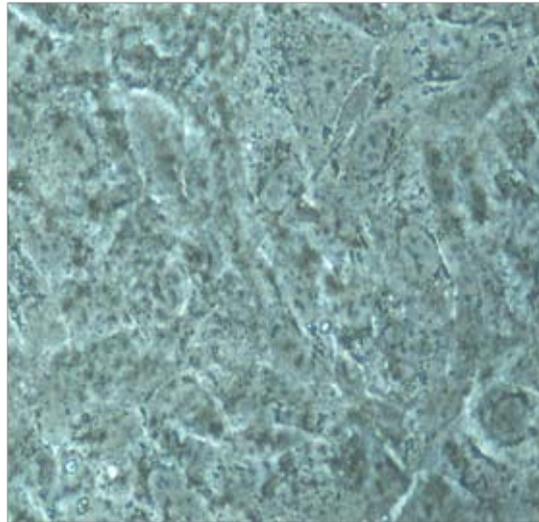
Culture conditions:

Dulbecco's Modified Essential Medium/F-12 mixture (DMEM/F-12) with GlutaMAX™-I supplemented with 15% fetal bovine serum (FBS), 5µg/mL recombinant human insulin, 10ng/mL mouse epidermal growth factor (EGF), 62.5U/ml penicillin, and 62.5µg/ml streptomycin.

Cells are maintained at 37° C in a 5% CO₂ atmosphere. Culture medium needs to be changed every 2-3 days. Usually, 7-8 mL fresh medium is added (25 cm² flask).



Human Retinal Pigment Epithelium Cell Line (ARPE-19)



Reference:

American Type Culture Collection (ATCC® CRL-2302™)

Characteristics:

The ARPE-19 cell line is derived from normal human retinal pigment cells that were spontaneously immortalized.

Positive for CRALBP and RPE65.

Culture conditions:

Dulbecco's Modified Essential Medium/F-12 mixture (DMEM/F-12) supplemented with 10% fetal bovine serum (FBS), 100U/mL penicillin, and 0.1 mg/mL streptomycin.

Cells are maintained at 37° C in a 5% CO₂ atmosphere. Culture medium needs to be changed every 2-3 days. Usually, 7-8 mL fresh medium is added (25 cm² flask).