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Product Information

Human Aorta Endothelial Cell (Mixed Donors)

Catalog Number	10HU-020	Cell Number	0.5 x 10^6 cells/vial
Species	*Homo sapiens*	Storage Temperature	Liquid Nitrogen

Description

Human Aorta Endothelial Cells (HAOEC) line the vessel wall of aorta, the largest artery in the human body. Because HAOECs are constantly exposed to high hemodynamic forces, they produce endothelium-derived substances regulating vasoconstriction and vessel growth [1]. HAOEC also modulate the expression of cellular adhesion molecules to control and fine-tune inflammatory responses and fibrinolysis [2]. These physiological properties allow HAOEC cultures to be widely used in the study of mechanisms for endothelium dysfunction, pathogenesis of vascular diseases and atherosclerosis, and the development of novel disease treatments.

iXCells Biotechnologies provides high quality HAOEC, which are isolated from human aorta and cryopreserved at P2, with >0.5 million cells in each vial. These HAOEC express vWF/Factor VIII and CD31 (PECAM). They are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi and can further expand for 16 population doublings in Endothelial Cell Medium (Cat# MD-0010) under the condition suggested by iXCells Biotechnologies.

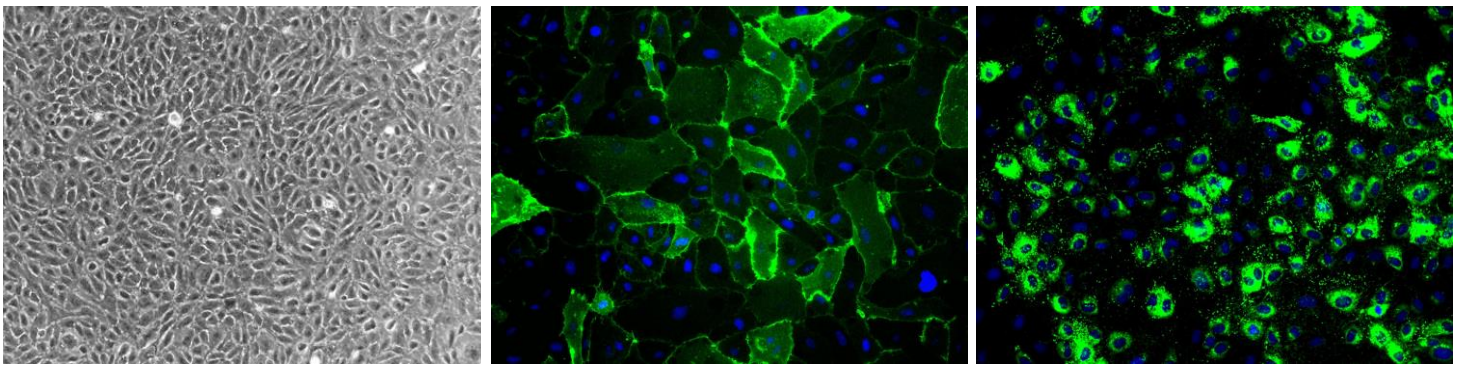

Figure 1. (A) HAOEC phase contract. **(B)** HAOEC CD31 staining. **(C)** HAOEC vWF staining

Product Details

Tissue	Human Aorta Endothelial Cells (Mixed donors)
Package Size	0.5 x 10^6 cells/vial
Passage Number	P2
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	Endothelial Cell Medium (Cat# MDECM)

Protocols

Thawing of Frozen Cells

1. Upon receipt of the frozen cells, it is recommended to thaw the cells and initiate the culture immediately in order to retain the highest cell viability.

2. To thaw the cells, put the vial in 37°C water bath with gentle agitation for ~1 minute. Keep the cap out of water to minimize the risk of contamination.

3. Pipette the cells into a 15ml conical tube with 5ml fresh culture medium.

4. Centrifuge at 1000rpm (~220g) for 5 minutes under room temperature.

5. Remove the supernatant and resuspend the cells in fresh culture medium.

6. Culture the cell in T75 flask.

Safety Precaution: *it is highly recommended that protective gloves and clothing should be used when handling frozen vials.*

Standard Culture Procedure

1. HAOEC can be cultured in Endothelial Cell Medium.

2. When cells reach ~80-90% confluence, remove the medium, and wash once with sterile PBS (5ml/T75 flask).
3. Add ~2.5ml of 0.25% Trypsin-EDTA to the flask and incubate for ~3 minutes at 37°C. Neutralize the enzyme by adding 2-3 volumes of cell culture medium.

4. Centrifuge 1000rpm (~220g) for 5min and resuspend the cells in desired volume of medium.

5. Seed new culture vessels at 5 × 10^3 cells/cm^2.

Reference

[1] Ando J, and Kamiya A. Flow-dependent regulation of gene expression in vascular endothelial cells. Heart J. 1996; 37:19-32.

[2] Liu JW, Wei DZ, etc. Enhancement of fibrinolytic activity of bovine aortic endothelial cells by ginsenoside Rb2. Acta Pharmacol sin 2003; 24: 102-108.

Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans. While iXCells Biotechnologies uses reasonable efforts to include accurate and up-to-date information on this product sheet, we makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. iXCells Biotechnologies does not warrant that such information has been confirmed to be accurate.

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