

Product Description

The spleen performs essential functions in the turnover of erythrocytes. It removes erythrocytes, metabolizes hemoglobin, and recycles iron. The spleen also mounts a primary immune response to antigens in the blood and synthesizes antibodies in its white pulp. Human spleen endothelial cells (HSEC), similar to other endothelial cells, constitute the natural interface between the blood and the underlying tissue. Previous studies have demonstrated an intriguing link between splenic endothelial cells, splenic hamartoma and capillary hemangioma [1]. Splenic endothelial cells (HSEC) have also shown a supportive micro-environment for the development of dendritic cells [2]. Furthermore, rapid destruction of young erythrocytes can occur in the spleen due to altered endothelial cell-macrophage interactions [3]. These observations suggest that splenic endothelial cells may play a more compelling role in the mononuclear phagocyte system.

iXCells Biotechnologies provides high quality HSEC, which are isolated from normal human spleen and cryopreserved at P1, with >0.5 million cells in each vial. HSEC express vWF/Factor VIII, CD31 (PECAM), and Dil-Ac-LDL by uptake. They are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi and can further expand for 12 population doublings in Endothelial Cell Growth Medium (Cat# MD-0010) under the condition suggested by iXCells Biotechnologies.

Product Details

Tissue	Human spleen tissue
Package Size	0.5 million cells/vial
Passage Number	P1
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	Endothelial Cell Growth Medium (Cat# MD-0010)

References

- [1] Zukerberg LR, Kaynor BL, Silverman ML, Harris NL. (1991) Splenic hamartoma and capillary hemangioma are distinct entities: immunohistochemical analysis of CD8 expression by endothelial cells. *Hum Pathol.* 22: 1258-61.
- [2] Despars G, O'Neill HC. (2006) Splenic endothelial cell lines support development of dendritic cells from bone marrow. *Stem Cells.* 24: 1496-504.
- [3] Trial J, Rice L, Alfrey CP. (2001) Erythropoietin withdrawal alters interactions between young red blood cells, splenic endothelial cells, and macrophages: an in vitro model of neocytolysis. *J Investig Med.* 49: 335-45.

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