

Product Description

Smooth muscle contraction is the fundamental event in gastrointestinal motion. Inflammation of the human intestine causes increased levels of smooth muscle-specific actin, which in turn promotes the thickening of the smooth muscle layers. The increased smooth muscle actin may affect force production and further demonstrates the plasticity of smooth muscle cells in the inflamed intestine [1]. Studies also show that human intestinal smooth muscle cells respond to IL-1beta and TNF-alpha stimulation by releasing IL-6, which may significantly contribute to the overall systemic inflammatory response [2]. The human colonic smooth muscle cells (HCoSMC) possess a different subtype of somatostatin receptor from gastric smooth muscle cells [3]. The availability of human HCoSMC makes it more feasible to study the contractile and proliferative responses of human colonic smooth muscle.

iXCells Biotechnologies provides high quality HCoSMC, which are isolated from human colon and cryopreserved at P1, with >0.5 million cells in each vial. HCoSMC express \pm -smooth muscle actin and desmin and are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fung. HCoSMC can further expand for 16 population doublings in Smooth Muscle Cell Growth Medium (Cat # MD-0034) under the condition suggested by iXCells Biotechnologies.

Product Details

Tissue	Human colon
Package Size	0.5 million cells/vial
Passage Number	P1
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	Smooth Muscle Cell Growth Medium (Cat # MD-0034)

References

- [1]. Blennerhassett, M. G., Bovell, F. M., Lourenssen, S., McHugh, K. M. (1999) Characteristics of inflammation-induced hypertrophy of rat intestinal smooth muscle cell. *Dig Dis Sci.* 44(7):1265-72.
- [2]. Ng, E. K., Panesar, N., Longo, W. E., Shapiro, M. J., Kaminski, D. L., Tolman, K. C., Mazuski, J. E. (2003) Human intestinal smooth muscle cells are potent producers of IL-6. *Mediators Inflamm.* 12(1):3-8.
- [3] Corleto, V.D., Severi, C., Coy, D.H., Delle, Fave G., Jensen, R.T. (1997) Colonic smooth muscle cells possess a different subtype of somatostatin receptor from gastric smooth muscle cells. *Am J Physiol.* 272:G689-97.

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