Science & Technology Park at University of New Mexico
800 Bradbury Dr. SE., Suite 150, Albuquerque, NM 87106
Web: http://www.rptox.com Tel: 706-286-2278
Order: Contact@ivtox.com Support: Service@ivtox.com

Product Information

Canine primary Sertoli Cell (CpSC)

Cat No.	**CpSC-01**
Cell number	1.5 million/ vial
Cell passage	Passage 1
Shipping & Storage	• Shipping with dry ice • Recommend to culture **IMMEDIATELY** upon receipt • Please store in liquid nitrogen

Sertoli cell (CpSC) plays an essential role in the regulation of spermatogenesis [1] and the development of the anatomical basis of blood-testis barrier [2, 3]. Sertoli cell dysfunction can contribute to the development of male reproductive disorders or cancers. In vitro Sertoli cell culture model is critical for better understanding the mechanism of disease development and strengthening therapeutic strategies for male infertility.

Reprotox Biotech provided the high quality of Canine Sertoli cells (CpSC), which are typically more representative than rodent as they have a relatively large size, longer life span, and more closely resemble human physiology. Canine Sertoli cells (CpSC) are cryopreserved at passage 1 with >1.5 million cells per cryovial. CpSC expresses Sertoli cell-specific markers, SOX-9 and GATA-4, and shows negative for mycoplasma, bacteria, yeast, and fungi. CpSC can be expanded for about 5 passages under the recommended culture condition. Further expansion may reduce the growth rate.

Product Details

Tissue	Canine testis
Shipped	Cryopreserved in dry ice
Morphology	Epithelial
Growth properties	Adherent
Growth condition	Recommend to use Poly-L-lysine coated vessel (2μg/cm^2) and incubate at 37 °C, 5% CO_2 in air atmosphere
Growth media	CpSC growth media (Cat No: CpSC-MD-01)

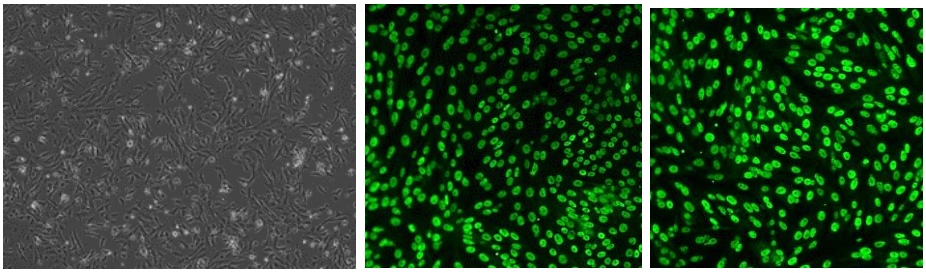

Figure 1. Canine Primary Sertoli Cells.

Left: Canine Sertoli Cell, 20X

Middle: Immunofluorescence staining with antibody against SOX9

Right: Immunofluorescence staining with antibody against of GATA-4

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Protocols

Thawing Frozen Cells:

1. Upon receiving a shipment of frozen cells, immediately thaw the cell and initiate the culture in order to achieve the highest cell viability.
2. Place the frozen vial in 37 ºC water bath with gentle agitation. Carefully decontaminate the vial with 70% Ethanol.
3. Transfer the cells to the culture vessels (coated with Poly-L-lysine) with a fresh CpSC growth medium at the density of 5,000 cells/cm^2
4. Put the culture vessel to the 37°C incubator at 5% CO_2 for continuous culture.
5. Refresh the growth media on the following day without disturbing the culture.
6. Change the media every 2-3 days depending on the culture condition.

Procedure for Culture Cells

1. Recommend to maintain CpSC (Cat No. CpSC-01) with Growth Media (Cat No. CpSC-MD-01).
2. Change the medium every 2-3 days until cells reach about 85% confluence.
3. Remove the media and cells twice with sterile PBS.
4. Add about 1mL 0.05% Trypsin/EDTA into the vessel (for example, T-75 flask) and incubate for 3-5 min at room temperature. Once the cells round up and detach from the surface, add the ratio 1:1 serum-containing culture media to neutralize the trypsin.
5. Seed the cells to the vessels with the appropriate cell density for the experiment.

Reference

1. Meroni, S.B., et al., *Molecular Mechanisms and Signaling Pathways Involved in Sertoli Cell Proliferation.* Front Endocrinol (Lausanne), 2019. **10**: p. 224.
2. Cheng, C.Y. and D.D. Mruk, *The blood-testis barrier and its implications for male contraception.* Pharmacol Rev, 2012. **64**(1): p. 16-64.
3. Jiang, X.H., et al., *Blood-testis barrier and spermatogenesis: lessons from genetically-modified mice.* Asian J Androl, 2014. **16**(4): p. 572-80.