

RocketCell™ 3D NSC Complete Growth Kit, AOF



All-in-one ready-to-use kit for 3D neural stem cell culture



Ready-to-Use, All-in-One Kit

100% synthetic kit with optimal combination of matrix and medium for 2D and 3D NSC culture and maintenance.



Support 3D NSC Network Formation

Promotes 3D neurite and axonal outgrowth for 3D networking formation, ideal for advanced studies.



Easy Cell Harvesting

Simple and efficient cell harvesting with VitroGel® Organoid Recovery Solution



Long-Term Culture and Maintenance



Confidently culture NSCs for over four weeks without affecting their multipotency.

Simple 3D Workflows at Room Temperature



Room temperature operation with simple mixing or coating steps; support lab automation

The **RocketCell™ 3D NSC Complete Growth Kit, AOF** is an all-in-one, ready-to-use kit designed to support the expansion and maintenance of neural stem cells (NSCs) in both 3D and 2D formats. This kit offers a fully defined, optimized combination of a synthetic, chemically defined hydrogel and a animal origin-free complete medium, eliminating variability and ensuring consistent, reproducible results.

The RocketCell™ 3D NSC Complete Growth Kit, AOF it provides a robust, scalable platform for **long-term culture** and **large-scale expansion** of undifferentiated NSCs while maintaining their multipotency and functional integrity. Designed for convenience and performance, this ready-to-use system operates at **room temperature**, integrates seamlessly with **high-resolution imaging** and **high-throughput screening** workflows for advanced neuroscience and regenerative medicine research.

RocketCell™ 3D NSC Complete Growth Kit, AOF (RC01-CGK)

Kit Contents:

VitroGel® NEURON	1 x 10 mL
RocketCell™ 3D NSC Suspension Medium, AOF	1 x 10 mL
RocketCell™ Cell Viability Enhancer (1000X)	2 x 50 µL
RocketCell™ NSC Basal Medium, AOF	1 x 500 mL
RocketCell™ NSC Supplement (50X), AOF	1 x 10 mL
CytoGrow™ EGF Growth Factor	1 x 10 µg
CytoGrow™ FGF Growth Factor	1 x 10 µg

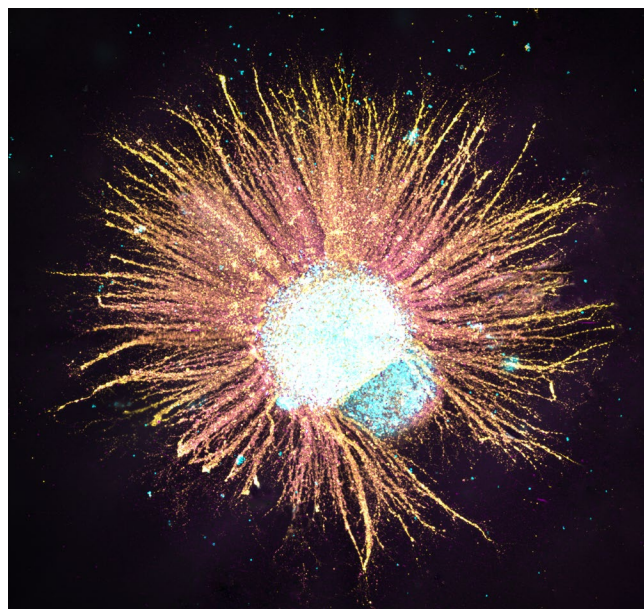


Figure 1. 3D encapsulation culture of NSCs in VitroGel® NEURON hydrogel as NSC spheroids with zonal projections.

Learn more about
RocketCell™ 3D NSC Complete Growth Kit, AOF
thewellbio.com/product/rocketcell-3d-nsc-complete-growth-kit-aof/



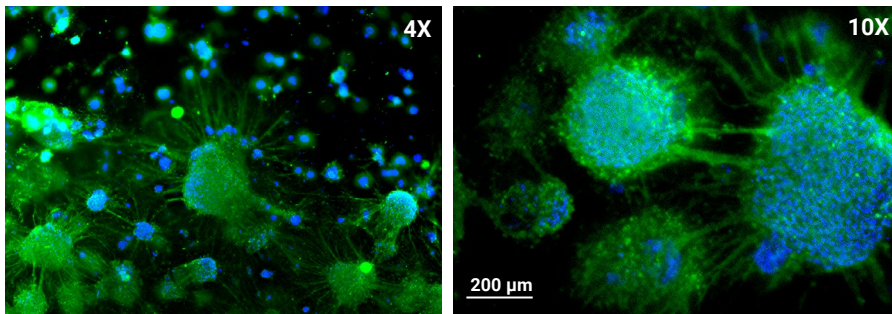


Figure 2. VitroGel® NEURON Hydrogel Supports the 3D Development of Dopaminergic Neurons. iPSCs were cultured in RocketCell™ 3D iPSC Complete Growth Kit, AOF for 6 passages and were differentiated into Floor Plate Neuro-Epithelial Spheroids.

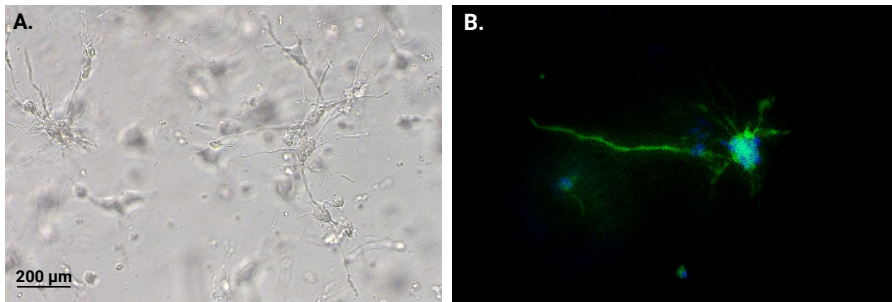


Figure 3. 3D Encapsulation Culture of NSC Cells as Single Cell Suspension in VitroGel® NEURON. VitroGel® NEURON Hydrogel and RocketCell™ NSC Media support 3D NSC cultures and neurite outgrowth. (A) 3D NSC cultures were established by preparing a single-cell NSC suspension with RocketCell™ NSC Growth Medium, AOF and mixing with VitroGel® NEURON for 6 days. (B) Immunofluorescence staining was performed to evaluate the presence of beta-III-tubulin, a neuron maturation marker. The images were obtained with the Keyence BZ-X microscope at 10 and 20X magnifications.

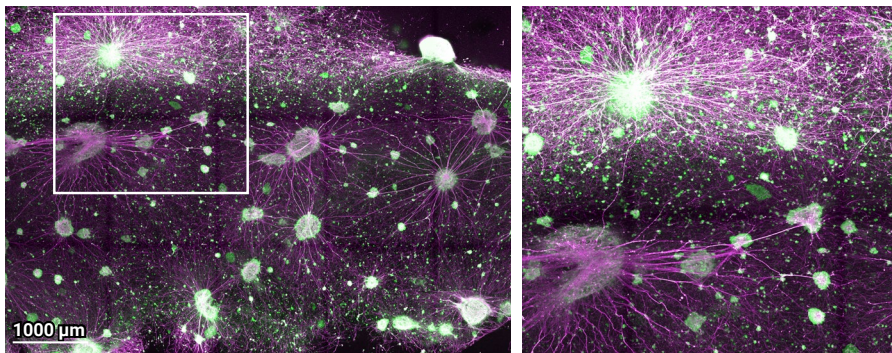


Figure 4. Development of Cholinergic Neurons from IPSCs using FPNE Protocol using VitroGel® NEURON. FPNE Organoids were recovered from VitroGel® STEM using VitroGel® Organoid Recovery Solution and plated with VitroGel® NEURON and RocketCell™ NSC Growth Medium, AOF. Cultures were developed for 14 days prior to indirect immunostaining for Phosphorylated Neurofilament (RT97, purple) and Choline Acetyl Transferase (CHAT, green).

Also Available: **RocketCell™ NSC Growth Medium, AOF (RC01-GM)**

Kit Contents:

RocketCell™ NSC Basal Medium, AOF	1 x 500 mL
RocketCell™ 3D NSC Suspension Medium, AOF	1 x 10 mL
CytoGrow™ EGF Growth Factor	1 x 10 µg
CytoGrow™ FGF Growth Factor	1 x 10 µg

Related products



RocketCell™ NSC Growth Medium, AOF
Animal origin-free complete medium for 3D and 2D neural stem cell culture



RocketCell™ 3D iPSC Complete Growth Kit, AOF
An all-in-one animal origin-free kit with optimized matrix, medium, and reagents for 3D iPSC expansion.



RocketCell™ Supplements
Chemically defined supplements that provide the essential nutrients needed for cell expansion, differentiation, and long-term maintenance.



CytoGrow™ Growth Factors
Premium quality growth factors with research-friendly price for advanced 3D/2D cell culture and beyond.



VitroPrime™ Spread-Attach Plate
Supports exceptional 2D and 3D neuron growth. No PDL-coated plates required.
Plates Available: 6-well, 12-well, 24-well, 48-well, 96-well



VitroPrime™ 3D Culture and Imaging Plate
Premium cover-glass bottom plate for zero disruption 3D cell culture workflow.
Plates Available: 6-well, 24-well, 96-well



VitroGel® Organoid Recovery Solution
Chemically defined, non-enzymatic cell harvesting solution to recover cells/organoids from hydrogel or an animal-based ECM within 15 minutes.



Cyto3D® Live-Dead Assay Kit
Versatile, live/dead cell viability analysis for 3D and 2D cell culture.



Explore our End-to-End Animal Origin-Free Platform for 3D Cell Culture

VitroGel® Chemically Defined Hydrogels	RocketCell™ Culture Media & Supplements	CytoGrow™ Premium Growth Factors	VitroPrime™ Culture Vessels	VitroGel® Recovery Solution	Cyto3D® Reagent for 3D Cell Analysis
--	---	--	---------------------------------------	---------------------------------------	--