



Maintenance of Human iPSC-Derived Cerebral Cortical Neurons in a 96-Well Plate Format



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Product Information

Catalog No.	Product Name	Format	Stock Conc.	Storage on Arrival	Thawing Instructions	Storage Once Thawed
ax0025 ax0026 ax0028 ax0029 ax0121 ax0122 ax0123 ax0124 ax0125 ax0222 ax0421 ax1021	Human iPSC-Derived Cerebral Cortical Neurons (plated)	96-well plate	N/A	37°C	N/A	N/A
ax0032-500	Neural Maintenance-XF Medium	500 mL	1x	Aliquot & store at -80°C for up to 6 months. Keep in the dark.	Overnight at 4°C	Once thawed, store aliquot at 4°C for up to 1 week

Note:

This protocol is applicable to all our 96-well plated neural and glial cells.

Important! Axol Neural Cell Culture Media

DOES NOT contain antibiotics or antifungal agents. Axol Bioscience does not recommend the use of antimicrobial agents such as penicillin, streptomycin and amphotericin. Antimicrobial agents should not be necessary if proper aseptic technique is adopted

Preparation of Reagents

Neural Maintenance-XF Medium

- Upon receipt aliquot and store **Neural Maintenance-XF Medium** at or below **-80°C** protected from light. Stored at **-80°C**, medium is stable for 6 months from date of manufacture.
- When ready to use, thaw an aliquot of **Neural Maintenance-XF Medium** overnight at **4°C** in the dark.
- A thawed aliquot of **Neural Maintenance-XF Medium** can be stored at **4°C** for **1 week**, protected from light.
- **Neural Maintenance-XF Medium** is fully supplemented and ready to use.

MAINTENANCE

Maintaining Human iPSC-Derived Cortical Neurons

The 96-well plate will arrive sealed in a plastic bag and the wells will be capped. The cells will be in a transportation medium which needs to be changed to **Neural Maintenance-XF Medium** upon receipt.

- Pre-warm an aliquot of **Neural Maintenance-XF Medium** to **37°C** before use.
- Carefully open the plastic package and place the 96-well plate into a class II biosafety cabinet. Make sure to spray the plate with 70% ethanol and wipe it down.
- Remove the silicone sealing cap from the plate.
- Incubate the plate at **37°C, 5% CO₂** for **2 hours**.
- Check cells under the microscope.
- After the incubation period there is a two-step process for changing the transportation medium to **Neural Maintenance-XF Medium**. This will ensure a gentle transition into **Neural Maintenance-XF Medium** and reduce cell disruption.
- Firstly, remove **150 µL** of medium from the wells and replace with **150 µL** of fresh, pre-warmed, **37°C, Neural Maintenance-XF Medium**.
- Secondly, remove **100 µL** of medium from the wells and replace with **100 µL** of fresh, pre-warmed, **37°C, Neural Maintenance-XF Medium**.
- Incubate the cells at **37°C, 5% CO₂**.
- To maintain a healthy neuronal culture, replace half the volume of medium with fresh, pre-warmed, **37°C, Neural Maintenance-XF Medium** every **3 days**.
- It is important that the medium is pre-warmed and that the medium changes are conducted gently by pipetting to the side of the culture dish.

Important!

Axol recommends: Culture the the cells for a minimum of 35 days after receipt before proceeding to analysis of synaptic marker expression or electrophysiology experiments.

Got any questions? Need help with the protocol?
Contact Axol Technical Support at support@axolbio.com
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Notes

A series of horizontal dotted lines for taking notes.





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