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Cell Apps Flyer Brain Cells

Cell Apps Poster Primary Cells

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Description

Rat cortical neurons (RCoN) are derived from cerebral cortices of day 18 embryonic Sprague Dawley rat brains. When cultured under the recommended conditions, RCoN arborize and form complex neurite network in one week. RCoN Stain positive for ? III-Tubulin.

The cerebral cortex plays a key role in cognition, memory, attention, perceptual awareness, thought, language and consciousness. Neurons connect to other neural cells through neurites and synapses to form complex neurocircuitry for signal transmission. A healthy circuitry in the brain is essential for cognitive functions, proper control and regulation of the other parts of the body. Dysfunction and degeneration in the cerebral cortex have been implicated in various brain injuries, neurological and psychiatric disorders. Cortical neurons, therefore, provide an excellent cellular model system to study disease mechanisms and pathophysiology. They also serve as a platform for drug screening and development, toxicity tests, immunostaining, live cell imaging, co-culturing and electrophysiology.

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^[1]
(Click to Enlarge) Freshly isolated **Rat Cortical Neurons (RCoN)** cultured for 5 days (A). Freshly isolated RCoN (B), and revived cryopreserved RCoN (C) stained on day 8 for β -III-Tubulin (green), GFAP (red), and DAPI (blue).

Details

Tissue	Normal healthy rat brain cortex
QC	No bacteria, yeast, fungi, mycoplasma
Character	Positive for β -III Tubulin
Bioassay	Plate on Poly-D-Lysine coated surface, arborize to form neurite network in Culture Med
Cryovial	2M RCoN cryopreserved after isolation in Serum-Free Freezing Medium (042-50)
Kit (2M)	2M cryopreserved RCoN (R882N-20), Coating Soln I (027-05), Plating Med (R817P-10), Culture Med (R817-100)
Doublings	N/A - Neurons don't proliferate in vitro
Applications	Laboratory research use only (RUO). Not for human, clinical, diagnostic or veterinary use.

Instructions RCoN R822N-20

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