Quick Differentiation Kits for iPSC derived neurons

Amsbio
announces an innovative range of **Induced Pluripotent Stem Cell (iPSC) kits** for researchers requiring a rapid, reproducible, and scalable means of generating **specific neural cell types** without sacrificing cell purity.

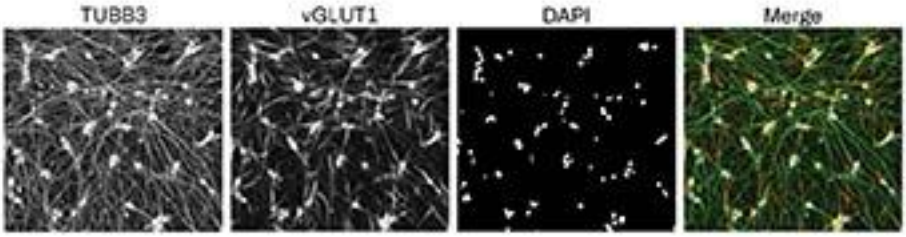

Image captions: A: Immunofluorescent staining of Quick-Neuron™ Excitatory cell cultures on day 10. These cells express neuronal markers (pan-neuronal marker TUBB3 and glutamatergic neuron-specific marker vGLUT1) and display typical neurite outgrowth. ;

These kits
use simple, highly reproducible protocols to ensure experimental consistency. These streamlined protocols allow researchers to efficiently differentiate iPSCs into target neural cells within just 1-2 weeks. Scientists can now produce neurons as needed, ensuring greater flexibility and control in design of disease modelling, regenerative medicine, and drug screening experiments. Avoiding use of animal-derived components, these kits support human-relevant research without reliance on animal models. These easy-to-use kits produce differentiated cells with no genetic footprint left behind, via a proprietary non-integrating transcription factor-based approach. Users can choose from Sendai virus or synthetic mRNA formats. Alternatively, for convenience of the user, diseased and control cell lines that have already been differentiated are available for all the below mentioned neural cell types.

Created using human iPS cells
made under license from The California Institute for Regenerative Medicine (CIRM), the **Quick-Neuron™ Excitatory differentiation kit** sets a new benchmark for producing highly pure populations of excitatory/glutamatergic neurons. These cells express neuronal markers (pan-neuronal marker TUBB3 and glutamatergic neuron-specific marker vGLUT1) and display typical neurite outgrowth. Furthermore, patch clamp experiments showed these neurons generate spontaneous action potentials.

The **Quick-Neuron™ Dopaminergic Differentiation kit**
uses synthetic mRNA to enable rapid, reproducible differentiation of iPSCs into highly pure dopaminergic neuron populations. Similarly, the new Quick-Neuron™ GABAergic Differentiation Kit enables easy and efficient differentiation of your iPS cell line into GABAergic neurons in just 10 days using synthetic mRNA. Amsbio also offers a range of high-quality human

iPSC-derived GABAergic neurons. These cells express neuronal markers (pan-neuronal marker TUBB3 and dopaminergic neuron-specific marker TH) and display typical neurite outgrowth.

This exciting new range
also includes **Quick-Neuron™ Cholinergic Differentiation Kits** for rapid, easy, and efficient differentiation of iPS cells into cholinergic neurons. The cholinergic neurons have been validated for expression of neuronal markers (pan-neuronal marker TUBB3 and cholinergic neuron-specific marker ChAT) and display typical neurite outgrowth.

For further information
please visit https://www.amsbio.com/stem-cell-synergy-solution-differentiate/ipsc-differentiation-kits/ or contact Amsbio on +31-72-8080244 / +44-1235-828200 / +1-617-945-5033 / info@amsbio.com

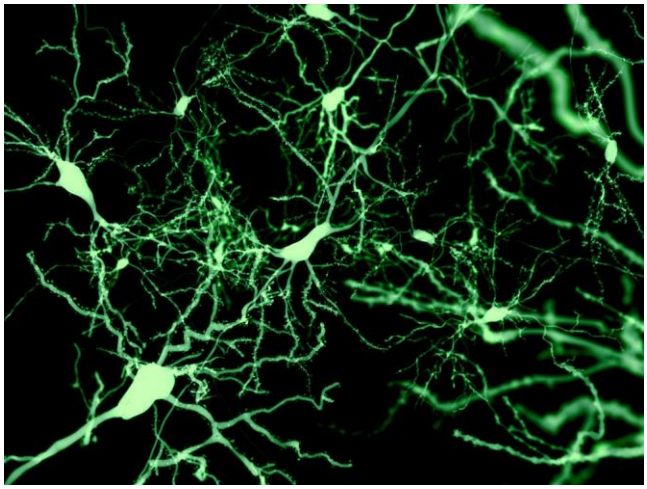

Image captions: ; B: Neurons marked by Fluorescence

Amsbio
also offers a complimentary range of easy-to-use specialized testing kits for mycoplasma detection and pluripotency verification that provide reliable, accurate results helping you maintain the quality and integrity of your stem cell lines.
Now part of the Europa Biosite group of companies, AMS Biotechnology (Amsbio) is recognized as a leading transatlantic company contributing to the acceleration of discovery through the provision of cutting-edge life science technology, products, and services for R&D in the medical, nutrition, cosmetics, and energy industries. Amsbio has in-depth expertise in extracellular matrices to provide elegant solutions for studying cell motility, migration, invasion, and proliferation. This expertise in cell culture and the ECM allows Amsbio to partner with clients in tailoring cell systems to enhance organoid and spheroid screening outcomes using a variety of 3D culture systems, including organ-on-a-chip microfluidics. For drug discovery research, Amsbio offers assays, recombinant proteins, and cell lines. Drawing upon a huge and comprehensive biorepository, Amsbio is widely recognized as a leading provider of high-quality tissue specimens (including custom procurement) from both human and animal tissues. The company provides

unique clinical grade products for stem cells and cell therapy applications. This includes GMP cryopreservation technology, and high-quality solutions for viral delivery.

Worldwide HQ

AMS Biotechnology (AMSBIO)
184 Milton Park
Abingdon
Oxon OX14 4SE
UK

Tel: +44-1235-828200
Fax: +44-1235-820482
Email: info@amsbio.com
Web www.amsbio.com