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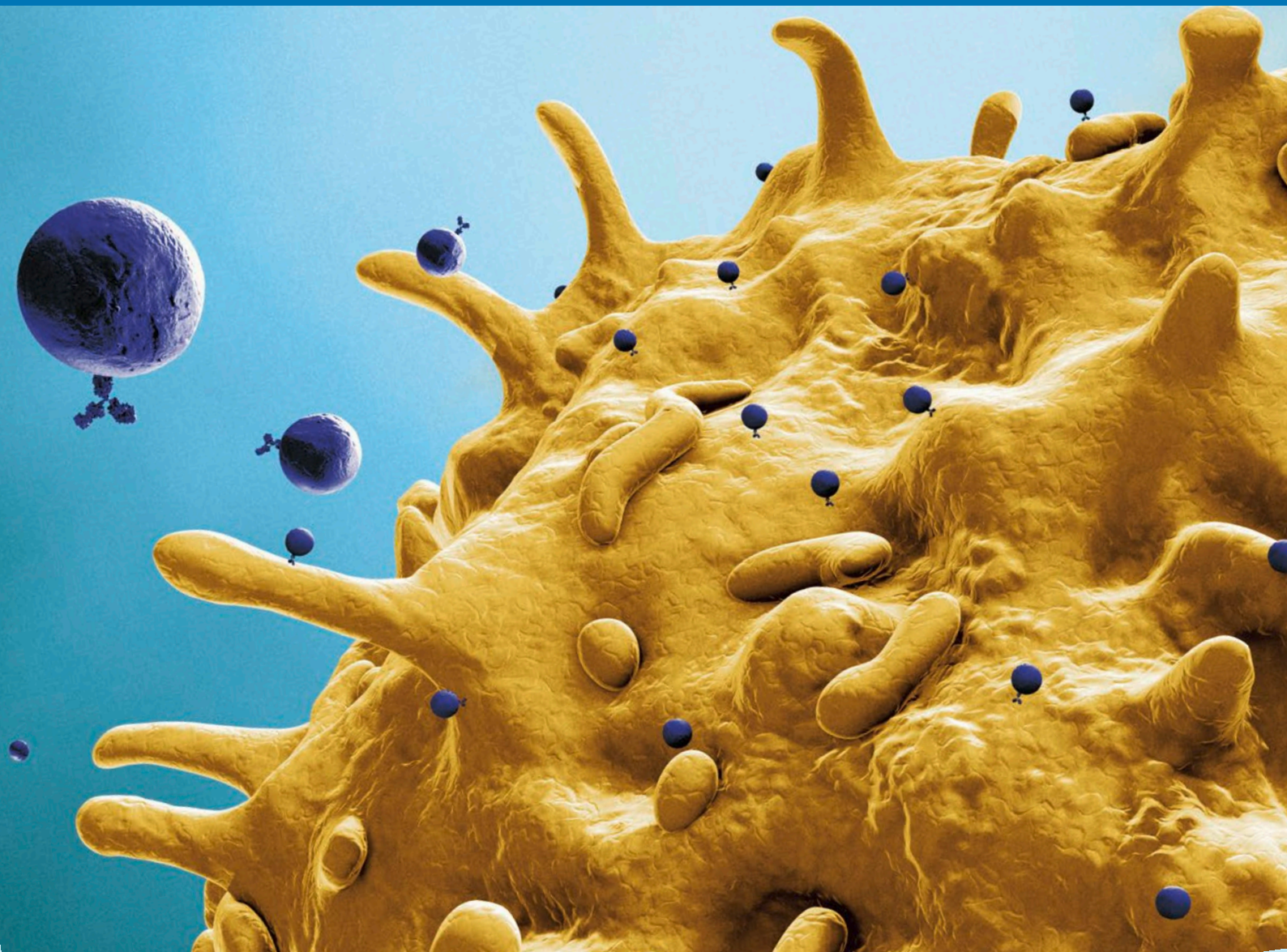
Adult Neuron Isolation Kit

Highly purified neurons from adult mouse tissue

The Adult Neuron Isolation Kit, mouse allows the isolation of untouched neurons from cell suspensions of mouse neural tissue older than postnatal day 7.

- **Simple and fast isolation protocol**
- **Extract pure and viable neurons from adult mouse brain**
- **Suitable for single-cell sequencing or cell culture**
- **Automated cell isolation with the autoMACS® Pro Separator**

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Simple and fast isolation protocol

The Adult Neuron Isolation Kit, mouse enables isolation of neurons from the adult mouse brain with a purity of approximately 95%. The workflow protocol is quick and easy, and enables a yield of 1.46×10^5 +/– 0.5×10^5 neurons per two mouse brains, as recommended in the accompanied datasheet.

Extract pure neurons from the adult brain

By depleting non-neuronal cells, inclusive of CD31-positive endothelial cells which are in high concentration within the adult brain and for which this kit is specifically designed, we are able to reduced contaminations to less than 5%.

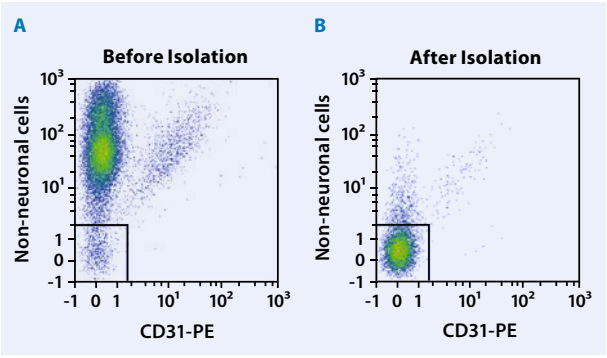


Figure 1: Depletion of CD31-positive cells using the Adult Neuron Isolation Kit, mouse. Cells from the adult brain were separated using the Adult Neuron Isolation Kit, mouse and stained for CD31 and non-neuronal cells. Fraction before isolation (left blot) shows an increased population of endothelial cells (CD31-positive) and non-neuronal cells. Positive fraction after isolation shows cells mostly negative for CD31 or non-neuronal marker.

Suitable for single-cell sequencing or cell culture

Neurons isolated with the Adult Neuron Isolation Kit, mouse are ready for many downstream applications, such as cultivation. When compared to our Neuron Isolation Kit, mouse which is only optimized for neonatal brain tissue, the Adult Neuron Isolation Kit, mouse provides increased numbers of viably pure neurons allowing extended downstream applications.

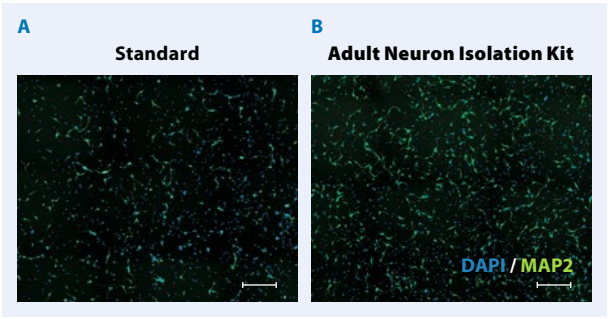


Figure 2: Cultivation of adult neurons. Neurons were seeded with a density of 1×10^5 in 24-well plates with MACS® Neuro Medium and Neurobrew-21. Neurons isolated from the adult brain using the Neuron Isolation Kit (left) resulted in a stable but reduced number of cells in culture, whereas the Adult Neuron Isolation Kit, mouse yielded a higher number of viable neurons from the adult brain (right). Dapi (blue) and MAP2 (green). Scale bar represents 200 µm.

Automated cell isolation with the autoMACS® Pro Separator

The separation of adult neuron cells can be automated using the autoMACS Pro Separator to increase reproducibility, achieve purity of over 97% and a yield of 1.25×10^5 +/– 0.5×10^5 neurons per two brains.

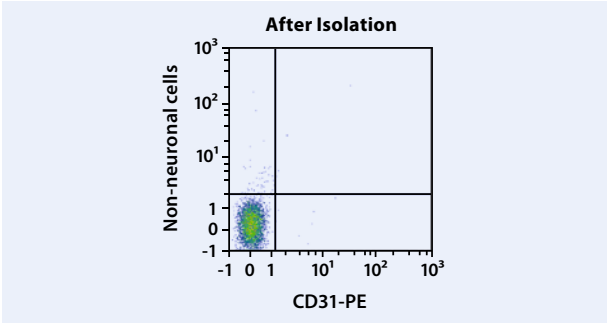


Figure 3: Magnetic separation of adult neurons with the autoMACS Pro Separator. Two brains were dissociated for isolated neurons using the Adult Neuron Isolation Kit, mouse and the autoMACS Pro Separator, using the Depl05 program. Cells were then analyzed for endothelial (CD31 -positive) and non-neuronal cells with flow cytometry.



Figure 4: The autoMACS Pro Separator enables automated cell isolation in a fast and gentle way.

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