







The Best Microtome for Sectioning High Quality Brain Slices

COMPRESSTOME® FOR ELECTROPHYSIOLOGY

Problems with other vibratomes

- Not able to stabilize tissue specimen
- Shearing during the cutting process
- Shearing damages surface layer neurons
- Causes difficulty patch-clamping healthy neurons

Principles of the Compresstome®

- Stabilize brain tissue using agarose embedding
- Gentle compression during cutting eliminates tissue deflections
- Results in smoother, evenly cut slices
- Get healthier cells that are ideal for patch-clamp recordings!

Improved Slice Viability of Compresstome® (P18-P30 Rat Brain) A: hypothalamus B: hypothalamus C: thalamus D: PAG E: VTA F: SNc G: SNr H: vagus I: hypoglossal J: cortex K: hippocampus L: Purkinje neurons



Advantages of the Compresstome® Slicers

• Doubles brain slice viability

The Compresstome® more than doubles the healthy-to-dead cell ratio of acutely cut brain slices, by preserving the upper surface layers of neurons. This feature is especially beneficial for patch-clamp electrophysiology and live-cell imaging experiments.

Faster cutting speed

The Compresstome® is able to section up to 10X faster than other leading vibrating microtomes, reducing the time the blade is rubbing against the slice, resulting in healthier slices and saving you time.

Preserves subcellular microstructure

The Compresstome® stabilizes entire tissue samples for sectioning, which prevents damage to the tissue microstructure. This allows preservation of subcellular components during experiments for more accurate data on neurotransmitter release physiology and studies of synaptic boutons.

Dramatically increases slice survival time

Acute brain slices cut with the Compresstome® can survive up to 36 to 48 hours in ACSF, compared to only 6 to 12 hours for slices made with other vibratomes. This gives you healthier cells to perform longer experiments and save time overall.

Superior brain slices from mature animals

The Compresstome® is ideal for cutting adult brain slices for patch-clamp electrophyiology. Mature brains (from 18+ month old mice) can be successfully sliced to yield healthy neurons for for patch-clamp recording. For protocols and examples, check out: **www.brainslicemethods.com**.

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