

BRAIN AND TISSUE MATRICES

Product No. 15001 – 15064

The Brain Matrix is designed to aid in the free-hand dissection of the brain. Brain Matrices are available for adult rat, rat pup, adult mouse, adult gerbil, guinea pig, adult ferret, adult rabbit, hamster, adult Rhesus, dog, and cat brains. Brain matrices are provided with coronal or sagittal channels, which are placed exactly 1.0 mm center-to-center. Tissue matrices are available with rectangular chamber, spherical chamber and “V” chamber in various sizes with channels, which are placed exactly 1.0 mm center-to-center. Each matrix is made of high-grade zinc to allow for easy cleaning and sterilization. Vibratome® Matrices are made of PTFE treated anodized aluminum for easy removal. Plastic and acrylic matrices are also available. The following guidelines are provided in order to facilitate use of these products.

INSTRUCTIONS FOR USE

1. After the brain is removed from the skull, place it ventral side up in the Brain Matrix. When properly seated in the matrix the brain's ventral surface should be parallel with the top surface of the mold.
2. Empirical use will determine which channel the first razor blade should be placed in. We recommend use of three double-edge blades, which have the top edge covered with tape for safety. These blades are thinner than normal single-edge blades and therefore allow for the placement of two blades in the same channel. The blade can be broken to allow for both sides to be used.

3. The first blade is placed in the channel, which lies on the caudal-most boundary of the slice you plan to take; two blades should then be placed in the channel, which corresponds to the rostral boundary. Each channel utilized adds 1 mm to the thickness of the slice. Once all three blades are in place, the first and second blade can be lifted out while leaving the third (rostral most blade) in place. The slice desired will be lifted out between these two blades. The third blade, which is left in place, serves two purposes: 1) it eliminates any movement of the brain within the matrix, and 2) it now serves as the first blade, which will be utilized for the removal of the next slice. Note: Slot width is approximately .012” (.305mm).

Use of the Brain Matrix in this manner will easily allow the investigator to slice sections serially (as thin as 1 mm) throughout the entire extent of the brain.

Once a given slice has been removed, the brain regions which are of interest to the researcher can be dissected or punched from the slice.

Blades:

Product No. 121-6 Double edged breakable style blade, box/250

Double edge, PTFE coated stainless steel blade

Sharp edges; may be broken in half lengthwise (protect fingers and use eye protection).

Edge width 1.5" (38 mm). Blade thickness .004" (.102mm).

Product No. 121-9 Feather® 2-edge blade, pkg/10

Double edge, carbon steel blade

Sharp edges; may be broken in half lengthwise (protect fingers and use eye protection).

Edge width 1.455" (36.95mm). Blade thickness .005" (.127mm).

Product No. 121-95 Blades for use with Brain Matrices, pkg/25.

Single edge, carbon steel blade

Edge width 4.65" (118mm). Blade thickness .009" (.229mm).

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