

Allen Mouse Brain Atlas

Adult Mouse Brain Reference Atlas

- [Reference Atlases](#)
 - [Adult, 3-D Coronal](#)
 - [P56, 2-D Atlases](#)
- [Reference Atlas Viewing Tools](#)

Reference Atlases

The Allen Reference Atlases are designed to:

- Allow users to directly compare data to neuroanatomical structures.
- Serve as templates for the development of 3-D computer graphic models of mouse brain, providing a foundation for the development of informatics-based annotation tools.
- Provide a standard neuroanatomical ontology for determining structural annotation and aid in the construction of a detailed searchable gene expression database.

Adult, 3-D Coronal

This coronal reference atlas is created from a 3-D volumetric reference atlas, annotated symmetrically using an average of data merged from 1,675 brain specimens. It provides spatial context and a common coordinate framework for mapping data in the Allen Mouse Connectivity Atlas, the Allen Cell Types Database (mouse), and the Allen Brain Observatory. This 2-D atlas consists of 132 virtual planes at 100 μm intervals.

P56, 2-D Atlases

These mouse reference atlases were created by Hong Wei Dong, M.D., Ph.D., in the coronal and the sagittal plane. They are full-color, high-resolution, web-based digital brain atlases accompanied by a systematic, hierarchically organized taxonomy of mouse brain structures. The gene expression data and reference atlases are derived using identical methodology, from 8-week old C57BL/6J male mouse brains prepared as unfixed, fresh-frozen tissue.

The coronal reference atlas consists of 132 coronal sections evenly spaced at 100 μm intervals and annotated to a detail of numerous brain structures. The sagittal reference atlas consists of 21 representative sagittal sections spaced at 200 μm intervals, annotated for 71 major brain regions.

The Allen Reference Atlas was first released online in 2005, and underwent several updates to add increasing complexity to the neuroanatomic delineations. Version 1 (2008) is used on the website to refer to the version of the atlas that was completed for publication as the print atlas (Dong, 2008) and used as the primary reference atlas in the Allen Mouse Brain Atlas until November 2011. Version 2 (2011) was developed to enable interactive exploration of the atlas online.

From the Reference Atlas [landing page](#) in the Allen Mouse Brain Atlas, you can explore the atlases in the Interactive Atlas Viewer or you can view the static 2008 versions of the images.

Reference Atlas Viewing Tools

[Interactive Atlas Viewer \(IAV\)](#)

[Zoom-And-Pan \(ZAP\) Image Viewer](#)

[Using The High Resolution Image Viewer](#)