Resource Summary Report

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Allen Mouse Brain Common Coordinate Framework

RRID:SCR_020999
Type: Tool

Proper Citation

Allen Mouse Brain Common Coordinate Framework (RRID:SCR_020999)

Resource Information

URL: https://atlas.brain-map.org/

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Description: 3D reference atlas to use with online datasets or as standalone resources. Can be used to analyze, visualize, and integrate multimodal and multiscale datasets in 3D. Intensity and shape population average template brain serves as basis of reference space and coordinate system. Average was constructed at 10 um voxel resolution by interpolating high resolution serial two photon tomography images from young adult C57BL/6J mice. Using multimodal reference data, entire brain was directly parcellated in 3D, labeling every voxel with brain structure from Allen Mouse Reference Atlas Ontology. In the 2017 release, the parcellation spanned 43 isocortical areas and their layers, 329 subcortical gray matter structures, 81 fiber tracts, and 8 ventricular structures.

Abbreviations: Allen CCF, CCFv3

Synonyms: The Allen Mouse Brain Common Coordinate Framework: A 3D Reference Atlas

Resource Type: atlas, reference atlas, data or information resource

Defining Citation: PMID:32386544

Keywords: 3D anatomical reference atlas, brain anatomy, adult mouse brain images

Funding:

Availability: Free, Freely available

Resource Name: Allen Mouse Brain Common Coordinate Framework

Resource ID: SCR_020999

Alternate URLs: https://community.brain-map.org/t/allen-mouse-ccf-accessing-and-using-related-data-and-tools/359

License URLs: https://alleninstitute.org/legal/citation-policy/

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Ratings and Alerts

No rating or validation information has been found for Allen Mouse Brain Common Coordinate Framework.

No alerts have been found for Allen Mouse Brain Common Coordinate Framework.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 180 mentions in open access literature.

Listed below are recent publications. The full list is available at dkNET.

Liu Y, et al. (2025) INSTINCT: Multi-sample integration of spatial chromatin accessibility sequencing data via stochastic domain translation. Nature communications, 16(1), 1247.

Gironda SC, et al. (2025) Early life psychosocial stress increases binge-like ethanol consumption and CSF1R inhibition prevents stress-induced alterations in microglia and brain macrophage population density. Brain, behavior, & immunity - health, 43, 100933.

Syeda A, et al. (2024) Facemap: a framework for modeling neural activity based on orofacial tracking. Nature neuroscience, 27(1), 187.

Oliinyk D, et al. (2024) µPhos: a scalable and sensitive platform for high-dimensional phosphoproteomics. Molecular systems biology, 20(8), 972.

Choi A, et al. (2024) Circuit mechanism underlying fragmented sleep and memory deficits in 16p11.2 deletion mouse model of autism. iScience, 27(12), 111285.

Kim J, et al. (2024) Bidirectional Control of Emotional Behaviors by Excitatory and Inhibitory Neurons in the Orbitofrontal Cortex. Experimental neurobiology, 33(5), 225.

Cao L, et al. (2024) mFusion: a multiscale fusion method bridging neuroimages to genes through neurotransmissions in mental health disorders. Communications biology, 7(1), 1699.

Cracco L, et al. (2024) Efficient transmission of human prion diseases to a glycan-free prion protein-expressing host. Brain : a journal of neurology, 147(4), 1539.

Bragg-Gonzalo L, et al. (2024) Early cortical GABAergic interneurons determine the projection patterns of L4 excitatory neurons. Science advances, 10(19), eadj9911.

Maity S, et al. (2024) Mapping dynamic molecular changes in hippocampal subregions after traumatic brain injury through spatial proteomics. Clinical proteomics, 21(1), 32.

Kang R, et al. (2024) Loss of Katnal2 leads to ependymal ciliary hyperfunction and autism-related phenotypes in mice. PLoS biology, 22(5), e3002596.

Huang F, et al. (2024) Protocol for induction of heterosynaptic long-term potentiation in the mouse hippocampus via dual-opsin stimulation technique. STAR protocols, 5(1), 102860.

Jin L, et al. (2024) Long-term labeling and imaging of synaptically connected neuronal networks in vivo using double-deletion-mutant rabies viruses. Nature neuroscience, 27(2), 373.

de Zwarte SMC, et al. (2024) Automated Segmentation of Fetal Intracranial Volume in Three-Dimensional Ultrasound Using Deep Learning: Identifying Sex Differences in Prenatal Brain Development. Human brain mapping, 45(17), e70058.

Bramlett SN, et al. (2024) Endogenous Regulator of G protein Signaling 14 (RGS14) suppresses cocaine-induced emotionally motivated behaviors in female mice. bioRxiv : the preprint server for biology.

Han T, et al. (2024) Deep coupled registration and segmentation of multimodal whole-brain images. Bioinformatics (Oxford, England), 40(11).

Kronman FN, et al. (2024) Developmental mouse brain common coordinate framework. Nature communications, 15(1), 9072.

Murphy KM, et al. (2024) Anatomical and molecular development of the human primary visual cortex. Frontiers in cellular neuroscience, 18, 1427515.

Yanai R, et al. (2024) A novel tauopathy model mimicking molecular and spatial aspects of human tau pathology. Brain communications, 6(5), fcae326.

Hu Y, et al. (2024) Comparative brain-wide mapping of ketamine- and isoflurane-activated nuclei and functional networks in the mouse brain. eLife, 12.