Resource Summary Report

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Allen Human Brain Atlas: BrainSpan (Atlas of the Developing Brain)

RRID:SCR_008083
Type: Tool

Proper Citation

Allen Human Brain Atlas: BrainSpan (Atlas of the Developing Brain) (RRID:SCR_008083)

Resource Information

URL: http://brainspan.org/

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Description: Atlas of developing human brain for studying transcriptional mechanisms involved in human brain development. Consists of RNA sequencing and exon microarray data profiling up to sixteen cortical and subcortical structures across full course of human brain development, high resolution neuroanatomical transcriptional profiles of about 300 distinct structures spanning entire brain for four midgestional prenatal specimens, in situ hybridization image data covering selected genes and brain regions in developing and adult human brain, reference atlas in full color with high resolution anatomic reference atlases of prenatal (two stages) and adult human brain along with supporting histology, magnetic resonance imaging (MRI) and diffusion weighted imaging (DWI) data.

Abbreviations: BrainSpan

Synonyms: BrainSpan - Atlas of the Developing Human Brain, BrainSpan: Atlas of the Developing Human Brain, NIMH Transcriptional Atlas of Human Brain Development

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

Keywords: anatomic, gene expression, molecular neuroanatomy, in situ hybridization, human, medial prefrontal cortex, primary visual cortex, hippocampus, amygdala, ventral striatum, postnatal, development, brain development, transcription, brain, rna sequencing, exon microarray, developmental stage, male, female, mrna transcript, developing human, adult human, fetal brain, fetus, histology, transcriptome, magnetic resonance imaging, diffusion tensor imaging, annotation, neuroanatomy, prenatal, development, fiber tract,

microarray, mri, dti, methylation, microrna, mrf

Related Condition: Neurodevelopmental disorder, Neuropsychiatric disease, Schizophrenia, Epilepsy, Parkinson's disease, Alzheimer's disease, Neurological disease, Autism

Funding: NIMH RC2 MH089921;
NIMH RC2 MH090047;
NIMH RC2 MH089929

Availability: Free, Freely available

Resource Name: Allen Human Brain Atlas: BrainSpan (Atlas of the Developing Brain)

Resource ID: SCR_008083

Alternate IDs: nif-0000-10626

Alternate URLs: http://www.developinghumanbrain.org/

License URLs: http://www.brainspan.org/policies.html#terms_of_use

Record Creation Time: 20220129T080245+0000

Record Last Update: 20250521T061220+0000

Ratings and Alerts

No rating or validation information has been found for Allen Human Brain Atlas: BrainSpan (Atlas of the Developing Brain).

No alerts have been found for Allen Human Brain Atlas: BrainSpan (Atlas of the Developing Brain).

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 371 mentions in open access literature.

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

Fuma K, et al. (2025) Prenatal inflammation impairs early CD11c-positive microglia induction and delays myelination in neurodevelopmental disorders. Communications biology, 8(1), 75.

Chen T, et al. (2025) In-depth inference of transcriptional regulatory networks reveals NPM1 as a therapeutic ribosomal regulator in MYC-amplified medulloblastoma. NPJ precision oncology, 9(1), 10.

Wu F, et al. (2025) Whole exome sequencing identifies KCNH7 variants associated with epilepsy in children. Genes & diseases, 12(2), 101322.

Mamat M, et al. (2025) Molecular architecture of the altered cortical complexity in autism. Molecular autism, 16(1), 1.

Soeung V, et al. (2024) The complex molecular epileptogenesis landscape of glioblastoma. Cell reports. Medicine, 5(8), 101691.

Ganglberger F, et al. (2024) BrainTACO: an explorable multi-scale multi-modal brain transcriptomic and connectivity data resource. Communications biology, 7(1), 730.

Duan K, et al. (2024) Differences in regional brain structure in toddlers with autism are related to future language outcomes. Nature communications, 15(1), 5075.

He MF, et al. (2024) ZFHX3 variants cause childhood partial epilepsy and infantile spasms with favourable outcomes. Journal of medical genetics, 61(7), 652.

Ball G, et al. (2024) Molecular signatures of cortical expansion in the human fetal brain. bioRxiv : the preprint server for biology.

Saberi A, et al. (2024) Adolescent maturation of cortical excitation-inhibition balance based on individualized biophysical network modeling. bioRxiv : the preprint server for biology.

Chettle J, et al. (2024) LARP1 haploinsufficiency is associated with an autosomal dominant neurodevelopmental disorder. HGG advances, 5(4), 100345.

Chai YC, et al. (2024) Spatially Self-Organized Three-Dimensional Neural Concentroid as a Novel Reductionist Humanized Model to Study Neurovascular Development. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 11(5), e2304421.

Kwak JS, et al. (2024) Functional and regulatory diversification of Period genes responsible for circadian rhythm in vertebrates. G3 (Bethesda, Md.), 14(10).

Cheng J, et al. (2024) KCTD10 regulates brain development by destabilizing brain disorder-associated protein KCTD13. Proceedings of the National Academy of Sciences of the United States of America, 121(12), e2315707121.

Luo T, et al. (2024) Association between de novo variants of nuclear-encoded mitochondrial-related genes and undiagnosed developmental disorder and autism. QJM : monthly journal of the Association of Physicians, 117(4), 269.

Hong H, et al. (2024) Manufacturing Uniform Cerebral Organoids for Neurological Disease Modeling and Drug Evaluation. Biomaterials research, 28, 0104.

Wang Y, et al. (2024) Spatio-molecular profiles shape the human cerebellar hierarchy along the sensorimotor-association axis. Cell reports, 43(2), 113770.

Szepanowski LP, et al. (2024) Cockayne Syndrome Patient iPSC-Derived Brain Organoids and Neurospheres Show Early Transcriptional Dysregulation of Biological Processes Associated with Brain Development and Metabolism. Cells, 13(7).

Abad C, et al. (2024) Gatad2b, associated with the neurodevelopmental syndrome GAND, plays a critical role in neurodevelopment and cortical patterning. Translational psychiatry, 14(1), 33.

Formicola D, et al. (2024) Expanding the molecular landscape of childhood apraxia of speech: evidence from a single-center experience. Frontiers in neuroscience, 18, 1396240.