

Resource Summary Report

Generated by FDI Lab - SciCrunch.org on Apr 8, 2025

LCModel

RRID:SCR_014455

Type: Tool

Proper Citation

LCModel (RRID:SCR_014455)

Resource Information

URL: <http://s-provencher.com/pages/lcmodel.shtml>

Proper Citation: LCModel (RRID:SCR_014455)

Description: Software for automatic quantification of in vivo proton MR spectra. Though it is mainly used for brain analysis, it can be used for a variety of analyses in different areas of the body. It receives time-domain data as input and gives a one page summary output. It is fully automatic, non-interactive, and operator-independent.

Resource Type: software resource, software application, data analysis software, data processing software

Defining Citation: [DOI:10.1002/mrm.1910300604](https://doi.org/10.1002/mrm.1910300604)

Keywords: automatic, quantification, in vivo, proton mr spectra, data analysis software

Funding:

Availability: Free to download, Free to test, License must be purchased in order to fully analyze data

Resource Name: LCModel

Resource ID: SCR_014455

Record Creation Time: 20220129T080320+0000

Record Last Update: 20250407T220120+0000

Ratings and Alerts

No rating or validation information has been found for LCModel.

No alerts have been found for LCModel.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 488 mentions in open access literature.

Listed below are recent publications. The full list is available at [FDI Lab - SciCrunch.org](#).

Shen Y, et al. (2025) CEST imaging combined with 1H-MRS reveal the neuroprotective effects of riluzole by improving neurotransmitter imbalances in Alzheimer's disease mice. *Alzheimer's research & therapy*, 17(1), 20.

Choi G, et al. (2025) Evaluation of Glutathione T2 in the Human Brain Using J-Difference MRS at 3T: Multicenter Multivendor Study. *NMR in biomedicine*, 38(2), e5313.

Hu X, et al. (2024) Brain extended and closed forms glutathione levels decrease with age and extended glutathione is associated with visuospatial memory. *NeuroImage*, 293, 120632.

Wiseman RL, et al. (2024) Brain N -acetyl-aspartyl-glutamate is associated with cognitive function in older virally suppressed people with HIV. *AIDS (London, England)*, 38(7), 1003.

Tully J, et al. (2024) Impaired striatal glutamate/GABA regulation in violent offenders with antisocial personality disorder and psychopathy. *Molecular psychiatry*, 29(6), 1824.

Risikesan J, et al. (2024) Similar insulin regulation of splanchnic FFA and VLDL-TG in men with nonalcoholic hepatic steatosis and steatohepatitis. *Journal of lipid research*, 65(7), 100580.

Pajuelo D, et al. (2024) Metabolic changes assessed by 1H MR spectroscopy in the corpus callosum of post-COVID patients. *Magma (New York, N.Y.)*, 37(5), 937.

Tani H, et al. (2024) Brain metabolite levels in remitted psychotic depression with consideration of effects of antipsychotic medication. *Brain imaging and behavior*, 18(1), 117.

Perdue MV, et al. (2024) Altered markers of brain metabolism and excitability are associated with executive functioning in young children exposed to alcohol in utero. *Metabolic brain disease*, 40(1), 30.

Farley N, et al. (2024) Test-Retest Reproducibility of Reduced-Field-of-View Density-Weighted CRT MRSI at 3T. *Tomography (Ann Arbor, Mich.)*, 10(4), 493.

Göschel L, et al. (2024) Plasma p-tau181 and GFAP reflect 7T MR-derived changes in Alzheimer's disease: A longitudinal study of structural and functional MRI and MRS. *Alzheimer's & dementia : the journal of the Alzheimer's Association*, 20(12), 8684.

Cho LY, et al. (2024) Region-specific changes in brain glutamate and gamma-aminobutyric acid across the migraine attack in children and adolescents. *Pain*, 165(12), 2749.

Qiu X, et al. (2024) Association between hearing ability and cortical morphology in the elderly: multiparametric mapping, cognitive relevance, and neurobiological underpinnings. *EBioMedicine*, 104, 105160.

Crisp CM, et al. (2024) Deterioration in cognitive control related mPFC function underlying development of treatment resistance in early psychosis. *Scientific reports*, 14(1), 12985.

Chan KL, et al. (2024) 1H and 31P magnetic resonance spectroscopy reveals potential pathogenic and biomarker metabolite alterations in Lafora disease. *Brain communications*, 6(2), fcae104.

Tang S, et al. (2024) Longitudinal Biochemical and Behavioral Alterations in a Gyrencephalic Model of Blast-Related Mild Traumatic Brain Injury. *Neurotrauma reports*, 5(1), 254.

Lundberg P, et al. (2024) Low-dose acetylsalicylic acid reduces local inflammation and tissue perfusion in dense breast tissue in postmenopausal women. *Breast cancer research : BCR*, 26(1), 22.

Dionísio A, et al. (2024) Neurochemical differences in core regions of the autistic brain: a multivoxel 1H-MRS study in children. *Scientific reports*, 14(1), 2374.

Okada N, et al. (2024) Longitudinal trajectories of anterior cingulate glutamate and subclinical psychotic experiences in early adolescence: the impact of bullying victimization. *Molecular psychiatry*, 29(4), 939.

La PL, et al. (2024) Longitudinal changes in brain metabolites following pediatric concussion. *Scientific reports*, 14(1), 3242.