Resource Summary Report

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TARQUIN

RRID:SCR_002598
Type: Tool

Proper Citation

TARQUIN (RRID:SCR_002598)

Resource Information

URL: http://tarquin.sourceforge.net/

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Description: An analysis tool for automatically determining the quantities of molecules present in NMR spectroscopic data. The intended purpose of TARQUIN is to aid the characterisation of pathologies, in particular brain tumours, both non-invasively with in-vivo 1H MRS and ex-vivo with 1H HR-MAS. TARQUIN has the following features: * Free to use and modify under the GPL licence. * Based on a flexible time-domain fitting routine designed to give accurate rapid and automated quantitation for routine analysis. * Cross platform, works on Windows, Linux and OSX. * Comes packaged with a quantum mechanically based metabolite simulator to allow basis set construction optimised for the investigation of particular pathologies sequence parameters. * Includes both GUI and command line interface for one-off and batch analyses.

Abbreviations: TARQUIN

Synonyms: TARQUIN MRS analysis package

Resource Type: software application, software resource

Defining Citation: PMID:20878762

Keywords: magnetic resonance, mrs, mas, molecule, nmr spectroscopy

Availability: Free, Available for download, Freely available

Resource Name: TARQUIN

Resource ID: SCR_002598

Alternate IDs: nlx_156002

Alternate URLs: http://www.nitrc.org/projects/tarquin

License: GNU General Public License

Record Creation Time: 20220129T080214+0000

Record Last Update: 20260912T200228+0000

Ratings and Alerts

No rating or validation information has been found for TARQUIN.

No alerts have been found for TARQUIN.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 64 mentions in open access literature.

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

Pratt J, et al. (2026) Strenuous Exercise Alters Brain Creatine and Glutamate/Glutamine (Glx) in Humans: Evidence From Dynamic 1H-MRS and 1H-MRSI. FASEB journal : official publication of the Federation of American Societies for Experimental Biology, 40(2), e71492.

Pang R, et al. (2026) Postnatal Azithromycin Is Neuroprotective and Anti-Inflammatory in a Piglet Model of Hypoxic-Ischemic Encephalopathy. Stroke, 57(5), 1362.

Minns JA, et al. (2026) Methodological comparison of fetal brain 1H-MRS data analysis techniques and gestational age analysis using LCModel in the fetal sheep brain. Experimental physiology, 111(4), 1597.

LaMaster J, et al. (2025) MRS-Sim: Open-Source Framework for Simulating In Vivo-Like Magnetic Resonance Spectra. NMR in biomedicine, 38(10), e70130.

Ackermann L, et al. (2025) Effect of Repetitive Transcranial Magnetic Stimulation on the Symptoms and Brain Imaging in Patients with Fibromyalgia Syndrome: A Randomized Controlled Pilot Trial. Pain and therapy.

Delang N, et al. (2025) The Acute Effects of Non-concussive Head Impacts on Brain Microstructure, Chemistry and Function in Male Soccer Players: A Pilot Randomised Controlled Trial. Sports medicine - open, 11(1), 77.

Pant R, et al. (2025) Altered visual cortex excitatory/inhibitory ratio following transient congenital visual deprivation in humans. eLife, 13.

Si Q, et al. (2025) Effects of modifying the pulse width on cognitive side effects with electroconvulsive therapy for schizophrenia. Schizophrenia research. Cognition, 41,

100369.

Pratt J, et al. (2025) Intra- and inter-session reliability and repeatability of 1H magnetic resonance spectroscopy for determining total creatine concentrations in multiple brain regions. Experimental physiology, 110(3), 464.

Dai F, et al. (2025) Lack of association between pretreatment glutamate/GABA and major depressive disorder treatment response. Translational psychiatry, 15(1), 71.

Xu K, et al. (2025) Correlation of N-acetylaspartyl glutamate level in the medial prefrontal cortex with FTND and daily smoking amounts in adult cigarette smokers. Frontiers in neuroscience, 19, 1647427.

Cardoso Delgado T, et al. (2025) Metabolic dysfunction-associated steatotic liver disease alters brain function and behavior: Insights from liver-targeted siRNA therapy. Science advances, 11(43), eady9758.

Revie L, et al. (2024) Age-related fornix decline predicts conservative response strategy-based slowing in perceptual decision-making. Aging brain, 5, 100106.

Gordji-Nejad A, et al. (2024) Single dose creatine improves cognitive performance and induces changes in cerebral high energy phosphates during sleep deprivation. Scientific reports, 14(1), 4937.

Maser J, et al. (2024) Clavulanic Acid-Mediated Increases in Anterior Cingulate Glutamate Levels are Associated With Decreased Cocaine Craving and Brain Network Functional Connectivity Changes. Current therapeutic research, clinical and experimental, 101, 100751.

Tzanetakos D, et al. (2023) Early metabolic alterations in the normal?appearing grey and white matter of patients with clinically isolated syndrome suggestive of multiple sclerosis: A proton MR spectroscopic study. Experimental and therapeutic medicine, 26(1), 349.

Harvey-Jones K, et al. (2023) Early assessment of injury with optical markers in a piglet model of neonatal encephalopathy. Pediatric research, 94(5), 1675.

Christidi F, et al. (2023) Hippocampal Metabolic Alterations in Amyotrophic Lateral Sclerosis: A Magnetic Resonance Spectroscopy Study. Life (Basel, Switzerland), 13(2).

Rustamzadeh A, et al. (2023) Neurochemical Ameliorating of the Hippocampus in Dyslipidemic Alzheimer Patients Following Silymarin; a Double-Blind Placebo-Controlled Randomized Clinical Trial. Medical journal of the Islamic Republic of Iran, 37, 123.

Yu M, et al. (2023) Changes in aspartate metabolism in the medial-prefrontal cortex of nicotine addicts based on J-edited magnetic resonance spectroscopy. Human brain mapping, 44(18), 6429.