

Resource Summary Report

Generated by [NIF](#) on Aug 27, 2026

T-One weighted Perfusion imaging Parameter CAlculation Toolkit

RRID:SCR_007376

Type: Tool

Proper Citation

T-One weighted Perfusion imaging Parameter CAlculation Toolkit (RRID:SCR_007376)

Resource Information

URL: http://dblab.duhs.duke.edu/modules/dblabs_topcat/index.php

Proper Citation: T-One weighted Perfusion imaging Parameter CAlculation Toolkit (RRID:SCR_007376)

Description: TOPPCAT stands for T-One weighted Perfusion imaging Parameter CAlculation Toolkit. TOPPCAT creates quantitative maps of Ktrans (volume transfer constant between blood plasma and the extravascular extracellular space) and fPV (fractional plasma volume) from dynamic T1-weighted perfusion images. At the current time, analysis using the method of Patlak plots (most appropriate for first pass dynamic contrast-enhanced MR imaging) is supported. As a preliminary step for the parameter calculation, TOPPCAT also creates maps of T1 and S0 (equilibrium magnetization) from multi-flip angle T1-weighted SPGR (or FLASH) sequences. Daniel P. Barboriak, James R. MacFall, Anthony O. Padua, Gerald E. York, Benjamin L. Viglianti, and Mark W. Dewhirst. Standardized software for calculation of Ktrans and vp from dynamic T1-weighted MR images. Presented at the International Society for Magnetic Resonance in Medicine Workshop on MR in Drug Development: From Discovery to Clinical Therapeutic Trials, McLean VA, April 2004.

Synonyms: TOPPCAT

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

Resource Name: T-One weighted Perfusion imaging Parameter CAlculation Toolkit

Resource ID: SCR_007376

Alternate IDs: nif-0000-00349

Record Creation Time: 20220129T080241+0000

Ratings and Alerts

No rating or validation information has been found for T-One weighted Perfusion imaging Parameter CAIculation Toolkit.

No alerts have been found for T-One weighted Perfusion imaging Parameter CAIculation Toolkit.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 2 mentions in open access literature.

Listed below are recent publications. The full list is available at [NIF](#) .

Park J, et al. (2017) Evaluation of permeability, doxorubicin delivery, and drug retention in a rat brain tumor model after ultrasound-induced blood-tumor barrier disruption. Journal of controlled release : official journal of the Controlled Release Society, 250, 77.

Park J, et al. (2012) The kinetics of blood brain barrier permeability and targeted doxorubicin delivery into brain induced by focused ultrasound. Journal of controlled release : official journal of the Controlled Release Society, 162(1), 134.