

Resource Summary Report

Generated by [Kravitz](#) on Sep 10, 2026

CAST

RRID:SCR_000628

Type: Tool

Proper Citation

CAST (RRID:SCR_000628)

Resource Information

URL: <http://athina.biol.uoa.gr/CAST/>

Proper Citation: CAST (RRID:SCR_000628)

Description: A novel algorithm for low-complexity region detection and selective masking. The algorithm is based on multiple-pass Smith-Waterman comparison of the query sequence against twenty homopolymers with infinite gap penalties. The output of the algorithm is both the masked query sequence for further analysis, e.g. database searches, as well as the regions of low complexity.

Abbreviations: CAST

Synonyms: CAST - Compositional Bias Detection Algorithm

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

Defining Citation: [PMID:11120681](#)

Keywords: low-complexity region detection and selective masking, query sequence against twenty homopolymers, infinite gap penalties, masked query sequence,

Funding: European Molecular Biology Laboratory; Heidelberg; Germany ;
European Union ;
TMR Proramme ;
IBM Research

Resource Name: CAST

Resource ID: SCR_000628

Alternate IDs: nlx_151779

Old URLs: <http://www.ebi.ac.uk/research/cgg/services/cast/>

Record Creation Time: 20220129T080202+0000

Record Last Update: 20260905T132423+0000

Ratings and Alerts

No rating or validation information has been found for CAST.

No alerts have been found for CAST.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 11 mentions in open access literature.

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

Domínguez-Romero ME, et al. (2026) Spinal cord injury induces mitochondrial dysfunction and metabolic reprogramming in non-regenerative *Xenopus laevis*. *iScience*, 29(7), 116636.

Clayton EL, et al. (2017) Early microgliosis precedes neuronal loss and behavioural impairment in mice with a frontotemporal dementia-causing CHMP2B mutation. *Human molecular genetics*, 26(5), 873.

Martín-Ibáñez R, et al. (2017) Helios expression coordinates the development of a subset of striatopallidal medium spiny neurons. *Development (Cambridge, England)*, 144(8), 1566.

De Blasio MJ, et al. (2016) Leptin Matures Aspects of Lung Structure and Function in the Ovine Fetus. *Endocrinology*, 157(1), 395.

Woods DL, et al. (2015) Aided and unaided speech perception by older hearing impaired listeners. *PloS one*, 10(3), e0114922.

Sanz L, et al. (2015) Swept-sine noise-induced damage as a hearing loss model for preclinical assays. *Frontiers in aging neuroscience*, 7, 7.

Hansen CF, et al. (2013) Hypertrophy dependent doubling of L-cells in Roux-en-Y gastric bypass operated rats. *PloS one*, 8(6), e65696.

Hosseini-Sharifabad M, et al. (2012) The effect of prenatal exposure to restraint stress on hippocampal granule neurons of adult rat offspring. *Iranian journal of basic medical sciences*, 15(5), 1060.

Denk D, et al. (2012) PAX5-AUTS2: a recurrent fusion gene in childhood B-cell precursor acute lymphoblastic leukemia. *Leukemia research*, 36(8), e178.

Knudsen L, et al. (2011) Ultrastructural changes of the intracellular surfactant pool in a rat model of lung transplantation-related events. *Respiratory research*, 12(1), 79.

Knudsen L, et al. (2007) Truncated recombinant human SP-D attenuates emphysema and type II cell changes in SP-D deficient mice. *Respiratory research*, 8(1), 70.