

Resource Summary Report

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CS2 Vector Resource

RRID:SCR_007237

Type: Tool

Proper Citation

CS2 Vector Resource (RRID:SCR_007237)

Resource Information

URL: <http://sitemaker.umich.edu/dlturner.vectors>

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Description: This web site has been created to provide a centralized source for CS2 and related vector information. It will be updated (on an irregular basis) with additional information, including new vector designs. CS2 vector: pCS2 is a multipurpose expression vector. Although originally designed for expressing proteins in *Xenopus* embryos from either injected RNA or DNA, pCS2 is also useful for high-level transient expression in a wide variety of mammalian and avian cells. It is also functional in zebrafish embryos (as DNA or RNA), and it can be used for in vitro transcription/translation (using, for example, the Promega TnT system). A number of derivatives of CS2 have been constructed that allow fusions to epitope tags and other marker proteins, as well as nuclear localization signals or the gal4 DNA binding and activation domains. In almost all cases, the same reading frames are used for the fusion vectors, to facilitate moving genes between multiple CS2 derivatives. pCS2 features: pCS2 contains a strong enhancer/promoter (simian CMV IE94) followed by a polylinker and the SV40 late polyadenylation site. An SP6 promoter is present in the 5' untranslated region of the mRNA from the sCMV promoter, allowing in vitro RNA synthesis of sequences cloned into the polylinker. A T7 promoter in reverse orientation between the polylinker and the SV40 polyA site for probe synthesis, as well as a second polylinker after the SV40 polyA site to provide several possible sites to linearize the vector for SP6 RNA transcription. The vector backbone is from pBluescript II KS and includes the amp resistance gene and an f1 origin for producing single stranded DNA. :Sponsors: This resource is supported by the University of Michigan. : Keywords: Vector, Resource, Expression, Protein, *Xenopus*, Embryo, RNA, DNA, Transient, Zebrafish, Domain, mRNA, Synthesis, Promoter,

Synonyms: CS2 Vector Resource

Resource Type: reagent supplier, material resource

Resource Name: CS2 Vector Resource

Resource ID: SCR_007237

Alternate IDs: nif-0000-30277

Record Creation Time: 20220129T080240+0000

Record Last Update: 20260810T040438+0000

Ratings and Alerts

No rating or validation information has been found for CS2 Vector Resource.

No alerts have been found for CS2 Vector Resource.

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 [NIF](#).

Case AM, et al. (2024) Postnatal Neuronal Nogo-A Knockdown Decreased the Message of Glutamatergic Synaptic Proteins. *Journal of physiological investigation*, 67(5), 249.

Fukui H, et al. (2018) Hippo signaling determines the number of venous pole cells that originate from the anterior lateral plate mesoderm in zebrafish. *eLife*, 7.

Bonnet A, et al. (2017) Quaking RNA-Binding Proteins Control Early Myofibril Formation by Modulating Tropomyosin. *Developmental cell*, 42(5), 527.

West A, et al. (2013) Npas4 is activated by melatonin, and drives the clock gene Cry1 in the ovine pars tuberalis. *Molecular endocrinology (Baltimore, Md.)*, 27(6), 979.

Dahlem TJ, et al. (2012) Simple methods for generating and detecting locus-specific mutations induced with TALENs in the zebrafish genome. *PLoS genetics*, 8(8), e1002861.

Guo J, et al. (2009) Mutations in the human naked cuticle homolog NKD1 found in colorectal cancer alter Wnt/Dvl/beta-catenin signaling. *PloS one*, 4(11), e7982.

Yu JY, et al. (2008) MicroRNA miR-124 regulates neurite outgrowth during neuronal differentiation. *Experimental cell research*, 314(14), 2618.

Kelly LE, et al. (2006) Pbx1 and Meis1 regulate activity of the *Xenopus laevis* Zic3 promoter through a highly conserved region. *Biochemical and biophysical research communications*, 344(3), 1031.

Chung KH, et al. (2006) Polycistronic RNA polymerase II expression vectors for RNA interference based on BIC/miR-155. *Nucleic acids research*, 34(7), e53.

Challa AK, et al. (2005) Robo3 isoforms have distinct roles during zebrafish development. *Mechanisms of development*, 122(10), 1073.

Yu JY, et al. (2003) Simultaneous inhibition of GSK3alpha and GSK3beta using hairpin siRNA expression vectors. *Molecular therapy : the journal of the American Society of Gene Therapy*, 7(2), 228.