

Resource Summary Report

Generated by [kravitz2](#) on Jul 29, 2026

pCH1/RAD51o

RRID:Addgene_102562

Type: Plasmid

Proper Citation

RRID:Addgene_102562

Plasmid Information

URL: <http://www.addgene.org/102562>

Proper Citation: RRID:Addgene_102562

Insert Name: Homo sapiens RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae) (RAD51), transcript variant 1

Organism: Homo sapiens

Bacterial Resistance: Kanamycin

Defining Citation: [PMID:27671650](#)

Vector Backbone Description: Backbone Marker:Novagen.EMD Millipore; Backbone Size:3719; Vector Backbone:pCOLADuet-1; Vector Types:Bacterial Expression; Bacterial Resistance:Kanamycin

Comments: This plasmid was specifically designed to allow high levels of RAD51 expression in E.coli along with the ability to incorporate non-natural amino acids using amber suppressor technology. It was used to incorporate an artificial amino acid to mimic tyrosine phosphorylation (published in Subramanyam S, et. al. (2016). Proceedings of the National Academy of Sciences 113(41):E6045-E6054).

Plasmid Name: pCH1/RAD51o

Relevant Mutation: Codon optimized for E.coli Expression

Record Creation Time: 20220422T221456+0000

Record Last Update: 20260725T073349+0000

Ratings and Alerts

No rating or validation information has been found for pCH1/RAD51o.

No alerts have been found for pCH1/RAD51o.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Chu SSH, et al. (2025) The role of human Shu complex in ATP-dependent regulation of RAD51 filaments during homologous recombination-associated DNA damage response. The Journal of biological chemistry, 301(6), 110212.

Norris JL, et al. (2025) PCNA encircling primer/template junctions is eliminated by exchange of RPA for Rad51: Implications for the interplay between human DNA damage tolerance pathways. bioRxiv : the preprint server for biology.

Subramanyam S, et al. (2018) Expression, Purification, and Biochemical Evaluation of Human RAD51 Protein. Methods in enzymology, 600, 157.