

Resource Summary Report

Generated by [PRECISE-TBI](#) on Aug 30, 2026

GFP-HP1alpha

RRID:Addgene_17652

Type: Plasmid

Proper Citation

RRID:Addgene_17652

Plasmid Information

URL: <http://www.addgene.org/17652>

Proper Citation: RRID:Addgene_17652

Insert Name: HP1 alpha

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:12560555](#)

Vector Backbone Description: Backbone Marker:Zentgraf Lab; Backbone Size:0; Vector Backbone:pBCHGN; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: See author's map for more information.

Plasmid Name: GFP-HP1alpha

Record Creation Time: 20220422T222019+0000

Record Last Update: 20260829T080047+0000

Ratings and Alerts

No rating or validation information has been found for GFP-HP1alpha.

No alerts have been found for GFP-HP1alpha.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 20 mentions in open access literature.

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

Taylor ER, et al. (2026) Local heterochromatin enrichment promotes telomere clustering and PML nuclear body assembly at telomeres. *Cell reports*, 45(3), 117004.

Bohra D, et al. (2026) HP1 isoforms direct repair pathway choice in response to heterochromatin double-strand breaks. *The Journal of cell biology*, 225(3).

Wu Y, et al. (2025) Viscoelastic extracellular matrix enhances epigenetic remodeling and cellular plasticity. *Nature communications*, 16(1), 4054.

Rashid F, et al. (2023) Mechanomemory in protein diffusivity of chromatin and nucleoplasm after force cessation. *Proceedings of the National Academy of Sciences of the United States of America*, 120(13), e2221432120.

Mitrentsi I, et al. (2022) Heterochromatic repeat clustering imposes a physical barrier on homologous recombination to prevent chromosomal translocations. *Molecular cell*, 82(11), 2132.

Liu W, et al. (2022) Dynamic Heterochromatin States in Anisotropic Nuclei of Cells on Aligned Nanofibers. *ACS nano*, 16(7), 10754.

Yuan B, et al. (2022) Wiskott-Aldrich syndrome protein forms nuclear condensates and regulates alternative splicing. *Nature communications*, 13(1), 3646.

Jain S, et al. (2021) TALEN outperforms Cas9 in editing heterochromatin target sites. *Nature communications*, 12(1), 606.

Strom AR, et al. (2021) HP1 γ is a chromatin crosslinker that controls nuclear and mitotic chromosome mechanics. *eLife*, 10.

Gao Y, et al. (2021) Interrogation of the dynamic properties of higher-order heterochromatin using CRISPR-dCas9. *Molecular cell*, 81(20), 4287.

Dutta P, et al. (2020) Unphosphorylated STAT3 in heterochromatin formation and tumor suppression in lung cancer. *BMC cancer*, 20(1), 145.

Legartová S, et al. (2019) DNA Damage Changes Distribution Pattern and Levels of HP1 Protein Isoforms in the Nucleolus and Increases Phosphorylation of HP1 γ -Ser88. *Cells*, 8(9).

Shin Y, et al. (2018) Liquid Nuclear Condensates Mechanically Sense and Restructure the Genome. *Cell*, 175(6), 1481.

Chow TT, et al. (2018) Local enrichment of HP1 α at telomeres alters their structure and regulation of telomere protection. *Nature communications*, 9(1), 3583.

Wang H, et al. (2018) CRISPR-Mediated Programmable 3D Genome Positioning and Nuclear Organization. *Cell*, 175(5), 1405.

Hinde E, et al. (2015) Spatiotemporal regulation of Heterochromatin Protein 1-alpha oligomerization and dynamics in live cells. *Scientific reports*, 5, 12001.

Magni M, et al. (2015) CCAR2/DBC1 is required for Chk2-dependent KAP1 phosphorylation and repair of DNA damage. *Oncotarget*, 6(19), 17817.

Yang M, et al. (2015) A novel role of PRR14 in the regulation of skeletal myogenesis. *Cell death & disease*, 6(4), e1734.

Toh KC, et al. (2015) Actin cytoskeleton differentially alters the dynamics of lamin A, HP1? and H2B core histone proteins to remodel chromatin condensation state in living cells. *Integrative biology : quantitative biosciences from nano to macro*, 7(10), 1309.

Foltánková V, et al. (2013) DNA-damage response in chromatin of ribosomal genes and the surrounding genome. *Gene*, 522(2), 156.