

Resource Summary Report

Generated by [RRID](#) on Aug 20, 2026

pCAG-GBP1-10gly-Gal4DBD

RRID:Addgene_49438

Type: Plasmid

Proper Citation

RRID:Addgene_49438

Plasmid Information

URL: <http://www.addgene.org/49438>

Proper Citation: RRID:Addgene_49438

Insert Name: GBP1-Gal4 DNA binding domain fusion protein

Organism: Synthetic

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:23953120](#)

Vector Backbone Description: Backbone Size:4823; Vector Backbone:pCAG-GFP; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: The GBP1 used differs from the PDB GBP1 by two amino acids. One is Q3D at a site away from the GFP binding pocket and not expected to affect GFP binding. The second was a C98S mutation to enhance protein solubility. Kirchhofer, A. et al. (2010). Modulation of protein properties in living cells using nanobodies. Nat. Struct. Mol. Biol. 17, 133–138. Tang J.C. et al. (2013). A nanobody-based system using fluorescent proteins as scaffolds for cell-specific gene manipulation. Cell. 2013 Aug 15;154(4):928-39.

Plasmid Name: pCAG-GBP1-10gly-Gal4DBD

Relevant Mutation: C98S (to increase protein solubility), Q3D

Record Creation Time: 20220422T222254+0000

Record Last Update: 20260815T081600+0000

Ratings and Alerts

No rating or validation information has been found for pCAG-GBP1-10gly-Gal4DBD.

No alerts have been found for pCAG-GBP1-10gly-Gal4DBD.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 5 mentions in open access literature.

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

Miyake T, et al. (2024) Functional analysis of protein interactions using coupled bi-fluorescence complementation/GFP nanobody techniques. Nucleic acids research, 52(14), e66.

Cherbonneau F, et al. (2022) TRACE-seq: A transgenic system for unbiased and non-invasive transcriptome profiling of living cells. iScience, 25(2), 103806.

Song R, et al. (2021) S100A8/S100A9 cytokine acts as a transcriptional coactivator during breast cellular transformation. Science advances, 7(1).

Ehyai S, et al. (2018) FMRP recruitment of β -catenin to the translation pre-initiation complex represses translation. EMBO reports, 19(12).

Pagiatakis C, et al. (2017) TGF β -TAZ/SRF signalling regulates vascular smooth muscle cell differentiation. The FEBS journal, 284(11), 1644.