

Resource Summary Report

Generated by [SPARC SAWG](#) on Aug 17, 2026

pFRET-HSP33 cys

RRID:Addgene_16076

Type: Plasmid

Proper Citation

RRID:Addgene_16076

Plasmid Information

URL: <http://www.addgene.org/16076>

Proper Citation: RRID:Addgene_16076

Insert Name: HSP33 cys

Organism: E. coli

Bacterial Resistance: Kanamycin

Defining Citation: [PMID:16054089](#)

Vector Backbone Description: Backbone Marker:Clontech; Backbone Size:5190; Vector Backbone:pECFP-N1; Vector Types:Mammalian Expression; Bacterial Resistance:Kanamycin

Comments: The HSP-FRET probe was generated by inserting YFP into the pECFP-N1 plasmid between the NheI and BglII sites and then ligating the redox-sensitive regulatory domain from the Escherichia coli HSP-33 between YFP and CFP via the EcoRI and BamHI sites. HSP-33: 210 amino acids; BA000007 region 4241962-4242826. Made in Hammerling lab; used in Waypa et al., Increases in mitochondrial reactive oxygen species trigger hypoxia-induced calcium responses in pulmonary artery smooth muscle cells, Circ Res. 2006 Oct 27; 99(9):970-8 PMID: 17008601.

Plasmid Name: pFRET-HSP33 cys

Record Creation Time: 20220422T221909+0000

Record Last Update: 20260815T080843+0000

Ratings and Alerts

No rating or validation information has been found for pFRET-HSP33 cys.

No alerts have been found for pFRET-HSP33 cys.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 6 mentions in open access literature.

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

Salsinha AS, et al. (2023) Potential of omega-3 and conjugated fatty acids to control microglia inflammatory imbalance elicited by obesogenic nutrients. *Biochimica et biophysica acta. Molecular and cell biology of lipids*, 1868(7), 159331.

Socodato R, et al. (2023) RhoA balances microglial reactivity and survival during neuroinflammation. *Cell death & disease*, 14(10), 690.

Canedo T, et al. (2021) Astrocyte-derived TNF and glutamate critically modulate microglia activation by methamphetamine. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*, 46(13), 2358.

Coloma-Rivero RF, et al. (2020) The Role of the Flagellar Protein FlgJ in the Virulence of *Brucella abortus*. *Frontiers in cellular and infection microbiology*, 10, 178.

Socodato R, et al. (2020) Microglia Dysfunction Caused by the Loss of Rhoa Disrupts Neuronal Physiology and Leads to Neurodegeneration. *Cell reports*, 31(12), 107796.

Socodato R, et al. (2015) c-Src deactivation by the polyphenol 3-O-caffeoylquinic acid abrogates reactive oxygen species-mediated glutamate release from microglia and neuronal excitotoxicity. *Free radical biology & medicine*, 79, 45.