

Resource Summary Report

Generated by [RRID](#) on Aug 22, 2026

pDisplay-GRAB_ATP1.0-IRES-mCherry-CAAX

RRID:Addgene_167582

Type: Plasmid

Proper Citation

RRID:Addgene_167582

Plasmid Information

URL: <http://www.addgene.org/167582>

Proper Citation: RRID:Addgene_167582

Insert Name: ATP sensor GRAB_ATP1.0

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:34942116](#)

Vector Backbone Description: Backbone Marker:Addgene; Backbone Size:6546; Vector Backbone:pDisplay; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: Please visit <https://www.biorxiv.org/content/10.1101/2021.02.24.432680v1> for bioRxiv preprint.

Plasmid Name: pDisplay-GRAB_ATP1.0-IRES-mCherry-CAAX

Record Creation Time: 20220422T221941+0000

Record Last Update: 20260815T080945+0000

Ratings and Alerts

No rating or validation information has been found for pDisplay-GRAB_ATP1.0-IRES-mCherry-CAAX.

No alerts have been found for pDisplay-GRAB_ATP1.0-IRES-mCherry-CAAX.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 7 mentions in open access literature.

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

Dospinescu VM, et al. (2026) CO₂-dependent opening of connexin 43 hemichannels. eLife, 14.

Wang S, et al. (2026) Purinergic signaling promotes gliomagenesis through nuclear calcium transients. bioRxiv : the preprint server for biology.

Butler J, et al. (2026) Activity-dependent CO₂ production in the axon triggers opening of Connexin32 in the Schwann cell paranode. eLife, 14.

Arai S, et al. (2025) qMaLioffG: a genetically encoded green fluorescence lifetime-based indicator enabling quantitative imaging of intracellular ATP. Nature communications, 16(1), 9972.

Lovatt A, et al. (2025) Mechanisms of permselectivity of connexin hemichannels to small molecules. The Journal of biological chemistry, 301(12), 110858.

Butler J, et al. (2023) X-linked Charcot Marie Tooth mutations alter CO₂ sensitivity of connexin32 hemichannels. Frontiers in cellular neuroscience, 17, 1330983.

Wu Z, et al. (2022) A sensitive GRAB sensor for detecting extracellular ATP in vitro and in vivo. Neuron, 110(5), 770.