Resource Summary Report

Generated by NIF on Aug 21, 2026

CKAR

RRID:Addgene_14860
Type: Plasmid

Proper Citation

RRID:Addgene_14860

Plasmid Information

URL: http://www.addgene.org/14860

Proper Citation: RRID:Addgene_14860

Insert Name: C kinase activity reporter

Bacterial Resistance: Ampicillin

Defining Citation: PMID:12782683

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5400; Vector Backbone:pcDNA3; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: PKC substrate sequence flanked by flexible linker sequence: GGSGG RFRRFQTLKIKAKA GGSGG. A206K mutation present in both CFP (mCFP) and citrine (mYFP) to reduce the intrinsic homoaffinity of all GFPs and preclude intermolecular FRET by CFP-YFP dimerization. CFP was amplified by PCR from a plasmid template to encode a HindIII restriction site followed by a consensus initiation site for translation (CGCCACC) before the initiating ATG of CFP, and a KpnI restriction site at the 3' end instead of a terminating codon. FHA2, a gift from Michael Yaffe (MIT, Cambridge, MA) was amplified by PCR to include KpnI and BamHI restriction sites at the 5' and 3' ends, respectively. Citrine was amplified by PCR to include a 5' BamHI followed by the PKC substrate sequence and a 3' XbaI following the terminating codon.

Plasmid Name: CKAR

Record Creation Time: 20220422T221826+0000

Record Last Update: 20260815T080710+0000

Ratings and Alerts

No rating or validation information has been found for CKAR.

No alerts have been found for CKAR.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 14 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF .

Vineall KG, et al. (2026) Visualizing PINK1 Activity Dynamics in Single Cells with a Phase Separation-Based Kinase Activity Reporter. ACS sensors, 11(2), 1517.

Vineall KG, et al. (2025) Visualizing PINK1 Activity Dynamics in Single Cells with a Phase Separation-Based Kinase Activity Reporter. bioRxiv : the preprint server for biology.

Inderwiedenstraße L, et al. (2024) Angiotensin receptors and ?1B-adrenergic receptors regulate native IK(ACh) and phosphorylation-deficient GIRK4 (S418A) channels through different PKC isoforms. Pflugers Archiv : European journal of physiology, 476(7), 1041.

Zong P, et al. (2024) TRPM2 enhances ischemic excitotoxicity by associating with PKC?. Cell reports, 43(2), 113722.

Riquelme R, et al. (2023) ROR2 homodimerization is sufficient to activate a neuronal Wnt/calcium signaling pathway. The Journal of biological chemistry, 299(11), 105350.

Socodato R, et al. (2023) Microglial Rac1 is essential for experience-dependent brain plasticity and cognitive performance. Cell reports, 42(12), 113447.

Renkhold L, et al. (2022) PKC-isoform specific regulation of receptor desensitization and KCNQ1/KCNE1 K+ channel activity by mutant ?1B-adrenergic receptors. Cellular signalling, 91, 110228.

Yang JM, et al. (2021) Deciphering cell signaling networks with massively multiplexed biosensor barcoding. Cell, 184(25), 6193.

Ardestani G, et al. (2019) FRET-based sensor for CaMKII activity (FRESCA): A useful tool for assessing CaMKII activity in response to Ca2+ oscillations in live cells. The Journal of biological chemistry, 294(31), 11876.

Niemeyer A, et al. (2019) Receptor-specific regulation of atrial GIRK channel activity by different Ca2+-dependent PKC isoforms. Cellular signalling, 64, 109418.

Freund JR, et al. (2018) Activation of airway epithelial bitter taste receptors by Pseudomonas aeruginosa quinolones modulates calcium, cyclic-AMP, and nitric oxide signaling. The Journal of biological chemistry, 293(25), 9824.

Hams N, et al. (2017) Otoferlin is a multivalent calcium-sensitive scaffold linking SNAREs and calcium channels. Proceedings of the National Academy of Sciences of the United States of America, 114(30), 8023.

Hariri BM, et al. (2017) Flavones modulate respiratory epithelial innate immunity: Anti-inflammatory effects and activation of the T2R14 receptor. The Journal of biological chemistry, 292(20), 8484.

Lee RJ, et al. (2016) Fungal Aflatoxins Reduce Respiratory Mucosal Ciliary Function. Scientific reports, 6, 33221.