

Resource Summary Report

Generated by [SPARC SAWG](#) on Sep 4, 2026

pcDNA3.1(+)-ExRai-AKAR2

RRID:Addgene_161753

Type: Plasmid

Proper Citation

RRID:Addgene_161753

Plasmid Information

URL: <http://www.addgene.org/161753>

Proper Citation: RRID:Addgene_161753

Insert Name: ExRai-AKAR2

Organism: Synthetic

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:32989297](#)

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5513; Vector Backbone:pcDNA3.1+; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Plasmid Name: pcDNA3.1(+)-ExRai-AKAR2

Record Creation Time: 20220422T221915+0000

Record Last Update: 20260902T042602+0000

Ratings and Alerts

No rating or validation information has been found for pcDNA3.1(+)-ExRai-AKAR2.

No alerts have been found for pcDNA3.1(+)-ExRai-AKAR2.

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](#) .

Pool EH, et al. (2025) Aberrant phase separation of two PKA RI?? neurological disorder mutants leads to mechanistically distinct signaling deficits. Cell reports, 44(6), 115797.

Douros JD, et al. (2025) A GLP-1 analogue optimized for cAMP-biased signaling improves weight loss in obese mice. Molecular metabolism, 100, 102124.

Dinh J, et al. (2025) The microprotein C16orf74/MICT1 promotes thermogenesis in brown adipose tissue. The EMBO journal, 44(12), 3381.

Coupland C, et al. (2025) Estrogenic activity of E2-conjugated GLP-1 is mediated by intracellular endolysosomal acidification and estrone metabolism. Molecular metabolism, 96, 102136.

Vierra NC, et al. (2023) Neuronal ER-plasma membrane junctions couple excitation to Ca²⁺-activated PKA signaling. Nature communications, 14(1), 5231.

Zhang JF, et al. (2022) Protocol for reading and imaging live-cell PKA activity using ExRai-AKAR2. STAR protocols, 3(1), 101071.