

Resource Summary Report

Generated by FDI Lab - SciCrunch.org on Apr 1, 2025

pGL3-NFAT luciferase

RRID:Addgene_17870

Type: Plasmid

Proper Citation

RRID:Addgene_17870

Plasmid Information

URL: <http://www.addgene.org/17870>

Proper Citation: RRID:Addgene_17870

Insert Name: 3x NFAT binding sequence

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:1377362](https://pubmed.ncbi.nlm.nih.gov/1377362/)

Vector Backbone Description: Backbone Marker:Promega; Backbone Size:4800; Vector Backbone:pGL3; Vector Types:Mammalian Expression, Luciferase; Bacterial Resistance:Ampicillin

Comments: This plasmid has three copies of the NF-AT site cloned upstream of the minimal IL-2 promoter from -89 to +51. The plasmid can be used to assay signal transduction through Ca²⁺, calcineurin and NFAT in any tissue including lymphocytes, neurons, osteoblasts, skin, endothelium, skeletal and heart muscle (Shaw et al Science 1988; Crabtree and Schreiber Cell 138,210, 2009). Based on Addgene's full plasmid sequence, the NFAT binding sequence appears to be ACGCCTTCTGTATGAAACAGTTTTTCCTCC.

Plasmid Name: pGL3-NFAT luciferase

Record Creation Time: 20220422T222029+0000

Record Last Update: 20220422T223426+0000

Ratings and Alerts

No rating or validation information has been found for pGL3-NFAT luciferase.

No alerts have been found for pGL3-NFAT luciferase.

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 [FDI Lab - SciCrunch.org](#).

Young M, et al. (2024) Transcriptional regulation in the absence of inositol trisphosphate receptor calcium signaling. *Frontiers in cell and developmental biology*, 12, 1473210.

Ivanovski F, et al. (2024) Ultrasound-mediated spatial and temporal control of engineered cells in vivo. *Nature communications*, 15(1), 7369.

Zhao Y, et al. (2024) Long noncoding RNA Malat1 protects against osteoporosis and bone metastasis. *Nature communications*, 15(1), 2384.

Randolph K, et al. (2024) Functional Analysis of KAP1/TRIM28 Requirements for HIV-1 Transcription Activation. *Viruses*, 16(1).

Darden CM, et al. (2022) Calcineurin/NFATc2 and PI3K/AKT signaling maintains γ -cell identity and function during metabolic and inflammatory stress. *iScience*, 25(4), 104125.

Zhou T, et al. (2020) Piezo1/2 mediate mechanotransduction essential for bone formation through concerted activation of NFAT-YAP1- β -catenin. *eLife*, 9.