

Resource Summary Report

Generated by [RRID](#) on Aug 26, 2026

pCR4-huNFATc1nuc

RRID:Addgene_23988

Type: Plasmid

Proper Citation

RRID:Addgene_23988

Plasmid Information

URL: <http://www.addgene.org/23988>

Proper Citation: RRID:Addgene_23988

Insert Name: NFATc1

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:16740479](#)

Vector Backbone Description: Backbone Size:4000; Vector Backbone:pCR4; Vector Types:cloning vector; Bacterial Resistance:Ampicillin

Comments: The c1nuc plasmid expresses the constitutively nuclear form of NFATc1 (Ho et al Nature 2004). It contains mutations in the phosphorylation sites for Dyrk1a and GSK3 that are responsible for actively exporting the protein from the nucleus (Beal et al Science 1997; Arron et al Nature 2006). It can be used as a transgene to explore NFAT signaling (Winslow et al Dev Cell 2006) and when expressed in a specific tissue can direct events such as bone development, thymocyte development or pancreatic beta cell functions (Heit J et al Nature 2007).

Plasmid Name: pCR4-huNFATc1nuc

Relevant Mutation: S172A S175A S176A S178A S179A S181A S184A S187A S188A S191A S194A S199A S203A S207A S211A S233A S237A S278A S282A S286A S290A

Record Creation Time: 20220422T222107+0000

Record Last Update: 20260815T081226+0000

Ratings and Alerts

No rating or validation information has been found for pCR4-huNFATc1nuc.

No alerts have been found for pCR4-huNFATc1nuc.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

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

Yu F, et al. (2022) Identification and characterization of NFATc1+ skeletal stem cells in bone regeneration. Cell reports, 41(6), 111599.

Atsuta Y, et al. (2019) L-type voltage-gated Ca²⁺ channel CaV1.2 regulates chondrogenesis during limb development. Proceedings of the National Academy of Sciences of the United States of America, 116(43), 21592.

Estrada-Avil??s R, et al. (2017) The cardiac calsequestrin gene transcription is modulated at the promoter by NFAT and MEF-2 transcription factors. PloS one, 12(9), e0184724.