

R26-CAG-LSL-hPIK3CA*H1047R-IRES-Luc-2A-tdTomato

Nomenclature

C57BL/6Smoc-*Gt(ROSA)26Sor*^{em1}(CAG-LSL-PIK3CA(H1047R)-IRES-luciferase-2A-tdTomato)Smoc

Cat. NO.

NM-KI-190065

Strain State

Repository Live

Gene Summary

Gene Symbol Gt(ROSA)26Sor	Synonyms	R26, ROSA26, AV258896, Gtrgeo26, Gtrosa26, Thumpd3as1
	NCBI ID	14910
	MGI ID	104735
	Ensembl ID	ENSMUSG00000086429

Model Description

These mice harbor a CAG-LSL-PIK3CA(H1047R)-IRES-luciferase-2A-tdTomato cassette in the Rosa26 locus generated by homologous recombination.

Research Application: cancer research

*Literature published using this strain should indicate: R26-CAG-LSL-hPIK3CA*H1047R-IRES-Luc-2A-tdTomato mice (Cat. NO. NM-KI-190065) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Breast Cancer	Phenotype(s)	MGI:5000479 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with MMTV-cre mice.
	Reference(s)	Adams JR, Xu K, Liu JC, Agamez NM, Loch AJ, Wong RG, Wang W, Wright KL, Lane TF, Zacksenhaus E, Egan SE, Cooperation between Pik3ca and p53 Mutations in Mouse Mammary Tumor Formation. Cancer Res. 2011 Apr 1;71(7):2706-2717

Cloves Syndrome	Phenotype(s)	MGI:6197269 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with CAG-cre mice.
	Reference(s)	Venot Q, Blanc T, Rabia SH, Berteloot L, Ladraa S, Duong JP, Blanc E, Johnson SC, Huguin C, Boccara O, Sarnacki S, Boddaert N, Pannier S, Martinez F, Magassa S, Yamaguchi J, Knebelmann B, Merville P, Grenier N, Joly D, Cormier-Daire V, Michot C, Bole-Feysot C, Picard A, Soupre V, Lyonnet S, Sadoine J, Slimani L, Chaussain C, Laroche-Raynaud C, Guibaud L, Broissand C, Amiel J, Legendre C, Terzi F, Canaud G, Targeted therapy in patients with PIK3CA-related overgrowth syndrome. Nature. 2018 Jun;558(7711):540-546
Ovarian Cancer	Phenotype(s)	MGI:5784677 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Arid1a-flox(NM-CKO-200078) and Ad-Cre mice.
	Reference(s)	Chandler RL, Damrauer JS, Raab JR, Schisler JC, Wilkerson MD, Didion JP, Starmer J, Serber D, Yee D, Xiong J, Darr DB, Pardo-Manuel de Villena F, Kim WY, Magnuson T, Coexistent ARID1A-PIK3CA mutations promote ovarian clear-cell tumorigenesis through pro-tumorigenic inflammatory cytokine signalling. Nat Commun. 2015;6:6118
Brain Glioma	Phenotype(s)	MGI:6414961 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Acvr1-Flox(NM-CKO-2100170), H3c2-Flox(NM-CKO-2117586) and Olig2-Cre mice.
	Reference(s)	Fortin J, Tian R, Zarrabi I, Hill G, Williams E, Sanchez-Duffhues G, Thorikay M, Ramachandran P, Siddaway R, Wong JF, Wu A, Apuzzo LN, Haight J, You-Ten A, Snow BE, Wakeham A, Goldhamer DJ, Schramek D, Bullock AN, Dijke PT, Hawkins C, Mak TW, Mutant ACVR1 Arrests Glial Cell Differentiation to Drive Tumorigenesis in Pediatric Gliomas. Cancer Cell. 2020 Mar 16;37(3):308-323.e12

Validation Data

No data