

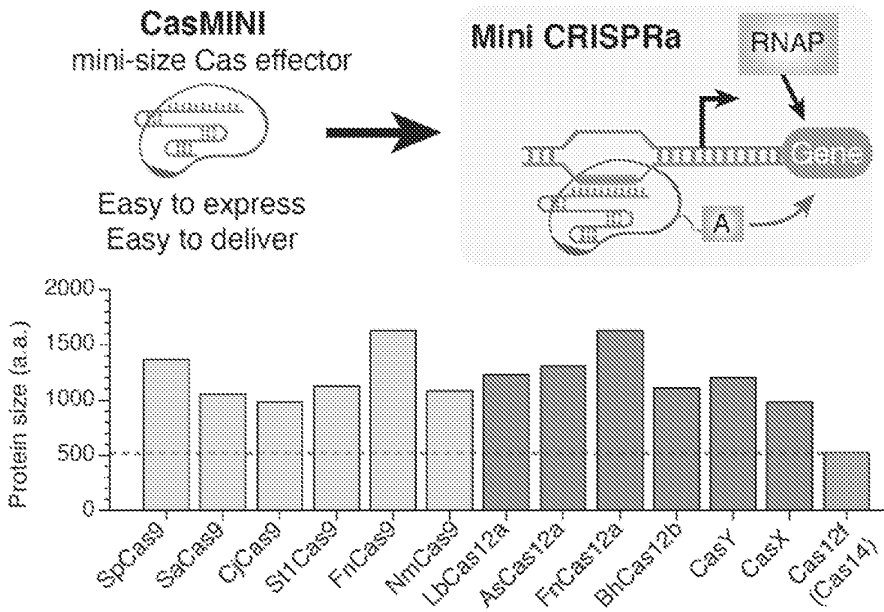


FIG. 1

Co-transfection

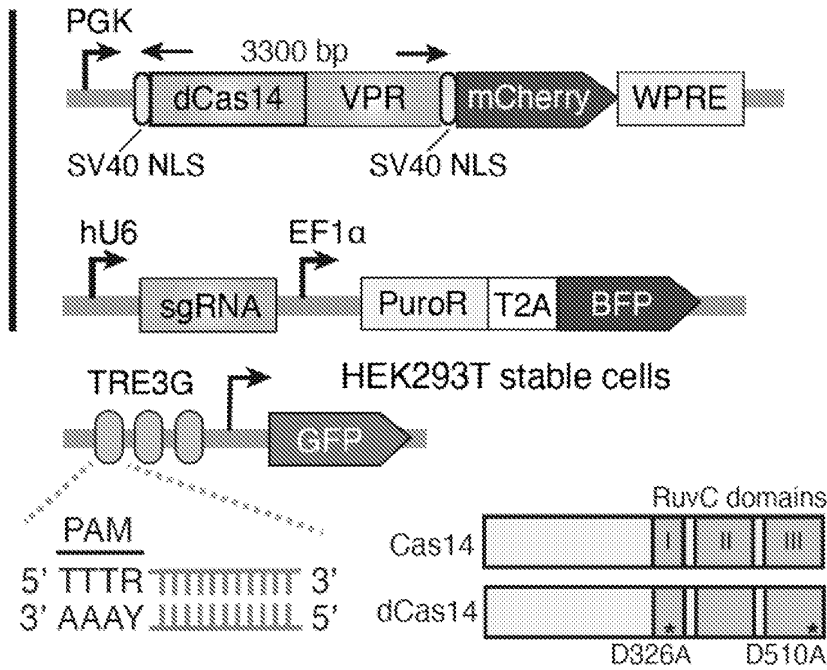


FIG. 2

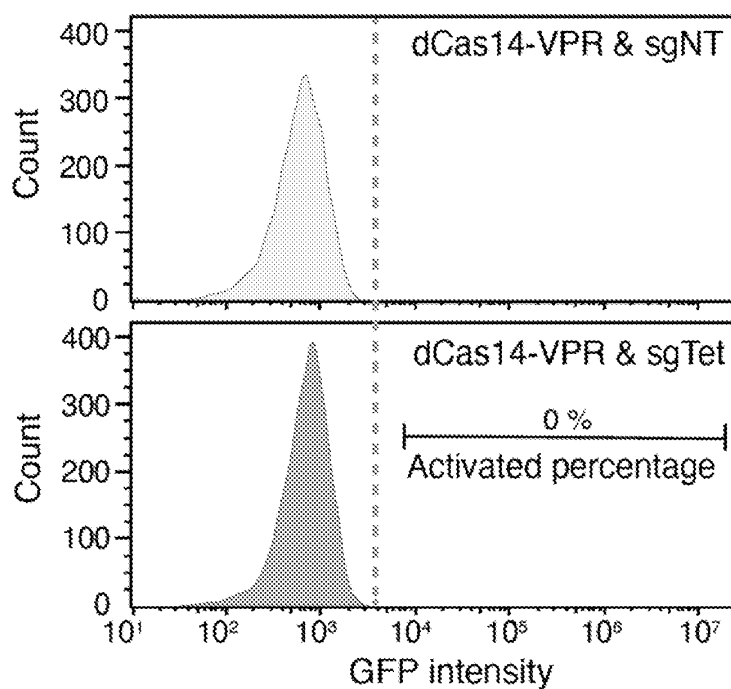


FIG. 3

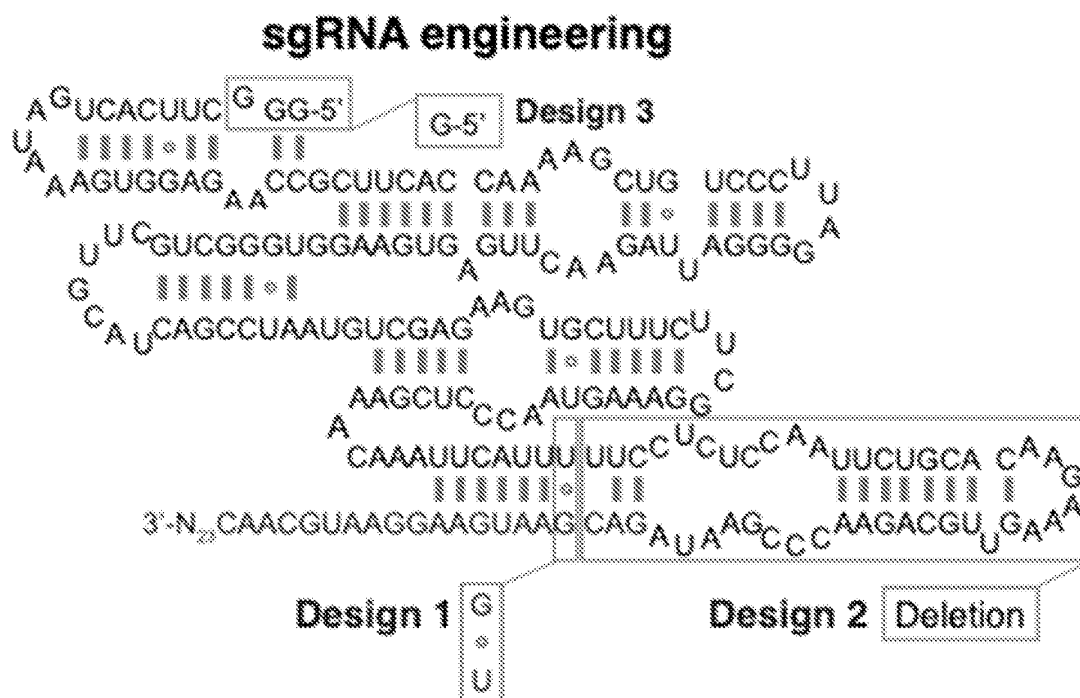


FIG. 4

Design 3

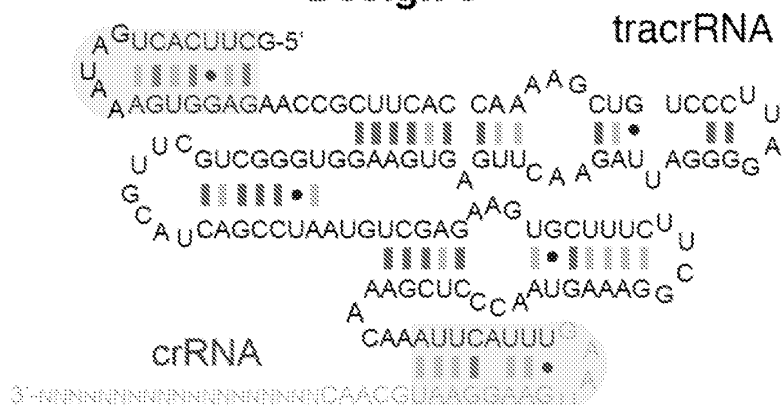


FIG. 8

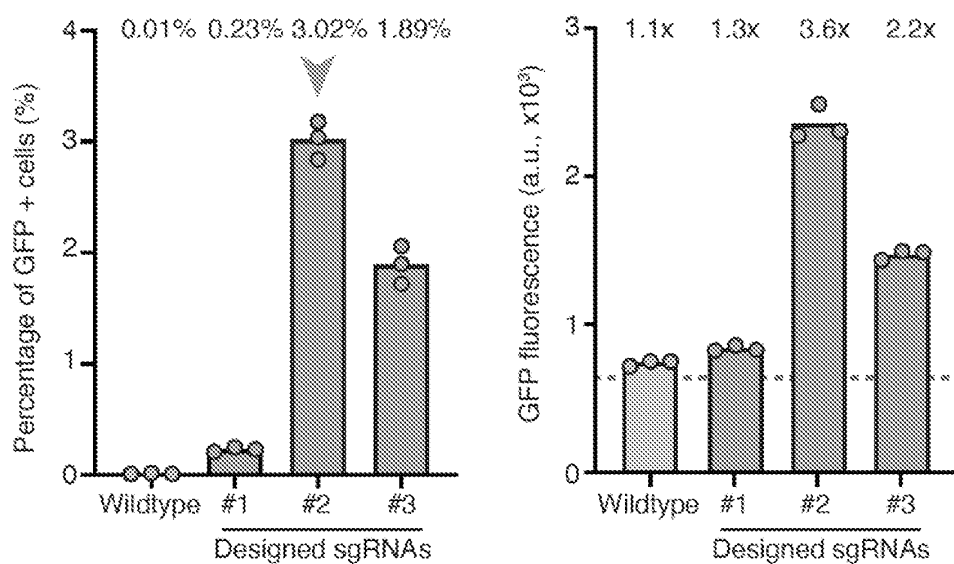


FIG. 9

sgRNA constructs

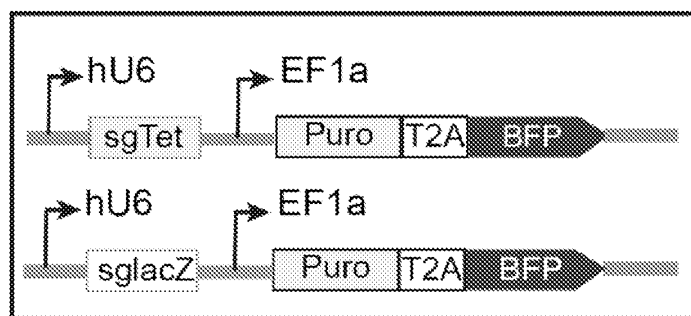


FIG. 10

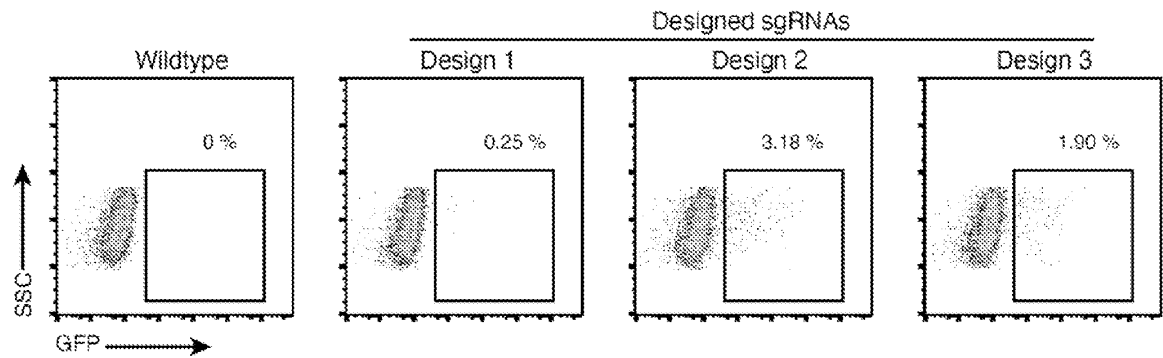


FIG. 11

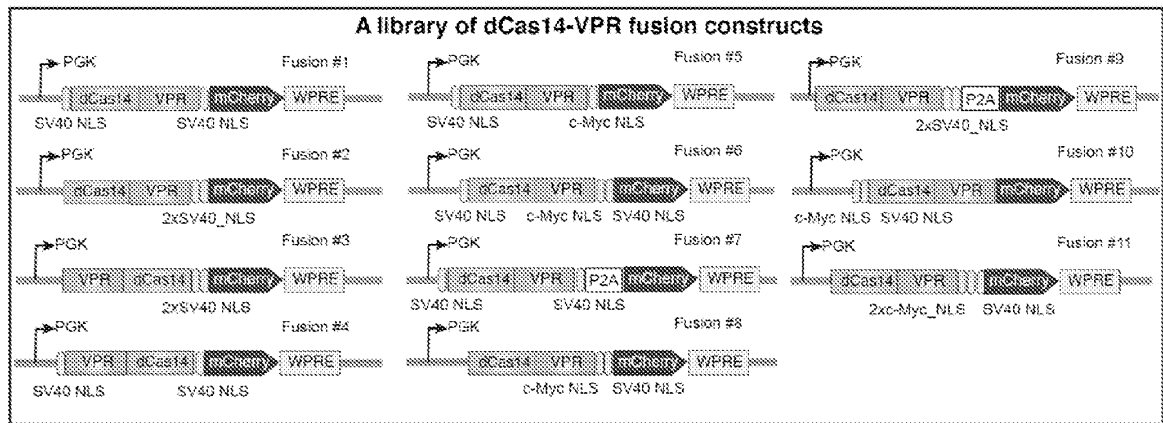


FIG. 12

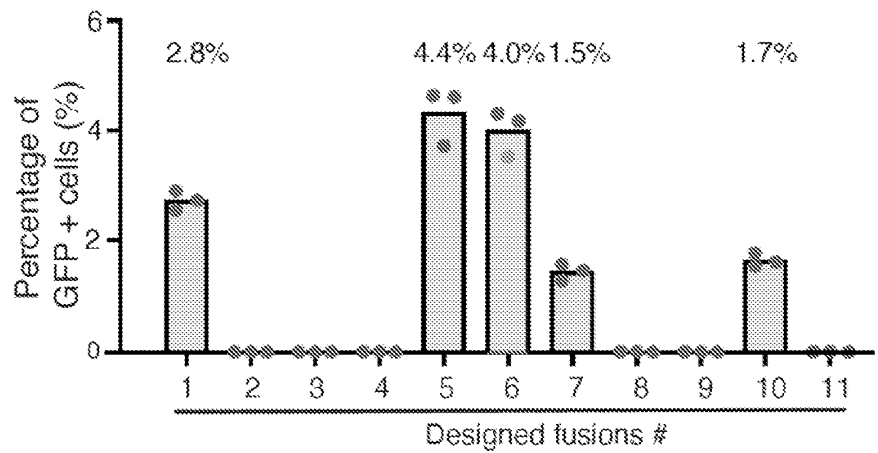


FIG. 13

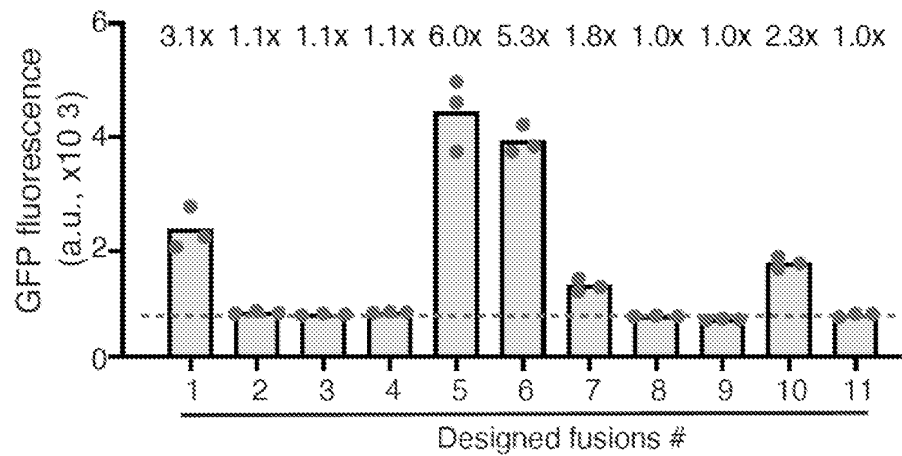


FIG. 14

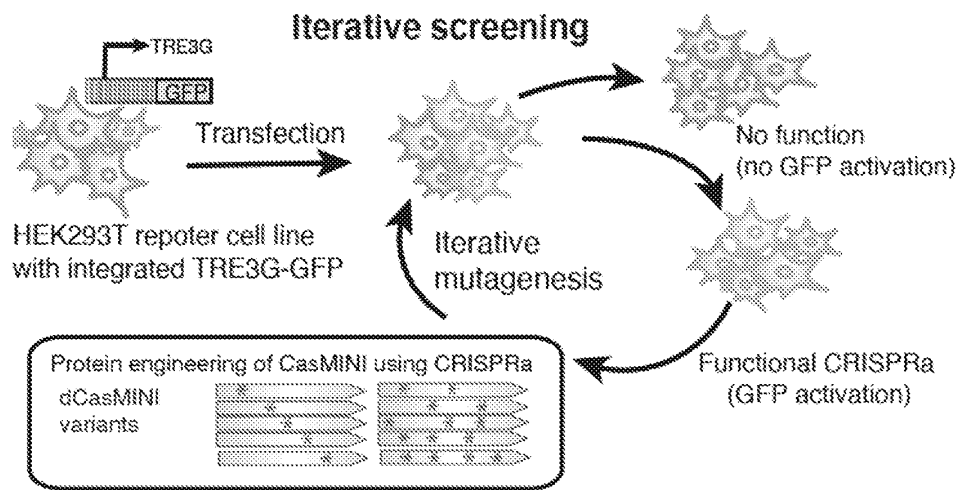


FIG. 15

	RuvC-I	RuvC-II	RuvC-III
	D326A ★ K330	E425	D510A ★
Cas14	GIDVGKSPPLVCAI	TVQMENLESMERK	NADYNAALNLSNPKLKSIP
AsCas12a	GIDRGERNLLIYITV	VVVLNLNFGFKS	DADANGAYHIALKGQLLL
LbCas12a	GIDRGERNLLYIVV	VIALEDLNSGFKN	NADANGAYNIARKVLWAI
FrCas12a	SIDRGERNLLAYYTL	IVVPEDLNFGFKR	DADANGAYHIGLKGMLLL
MbCas12a	GIDRGERHLLYLTIV	IVVLEDLNFGFKR	NADANGAYHIALKGLWLL
DfTnpB	GVDLGLRMLAVVST	VIVLEKLGIRKR	NADLNASRNIVKNYLASL

FIG. 16

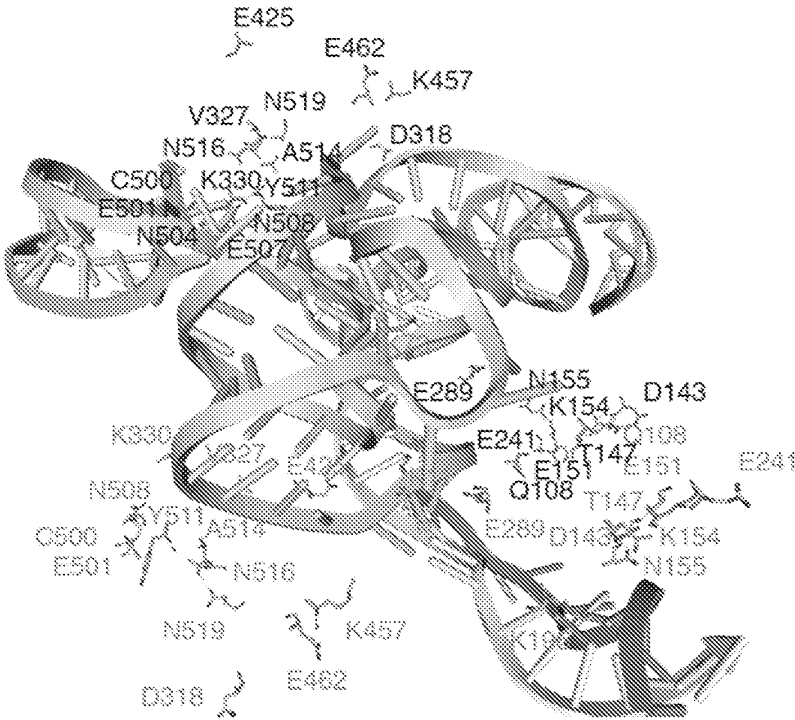


FIG. 17

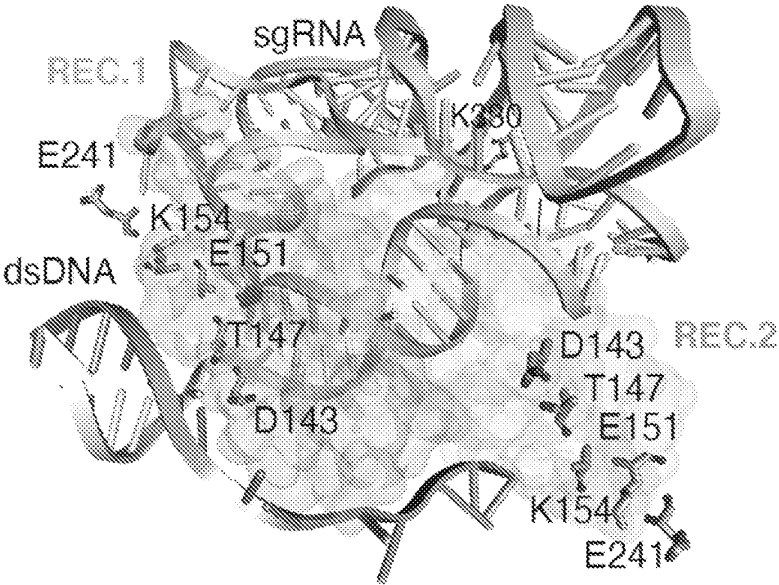


FIG. 18

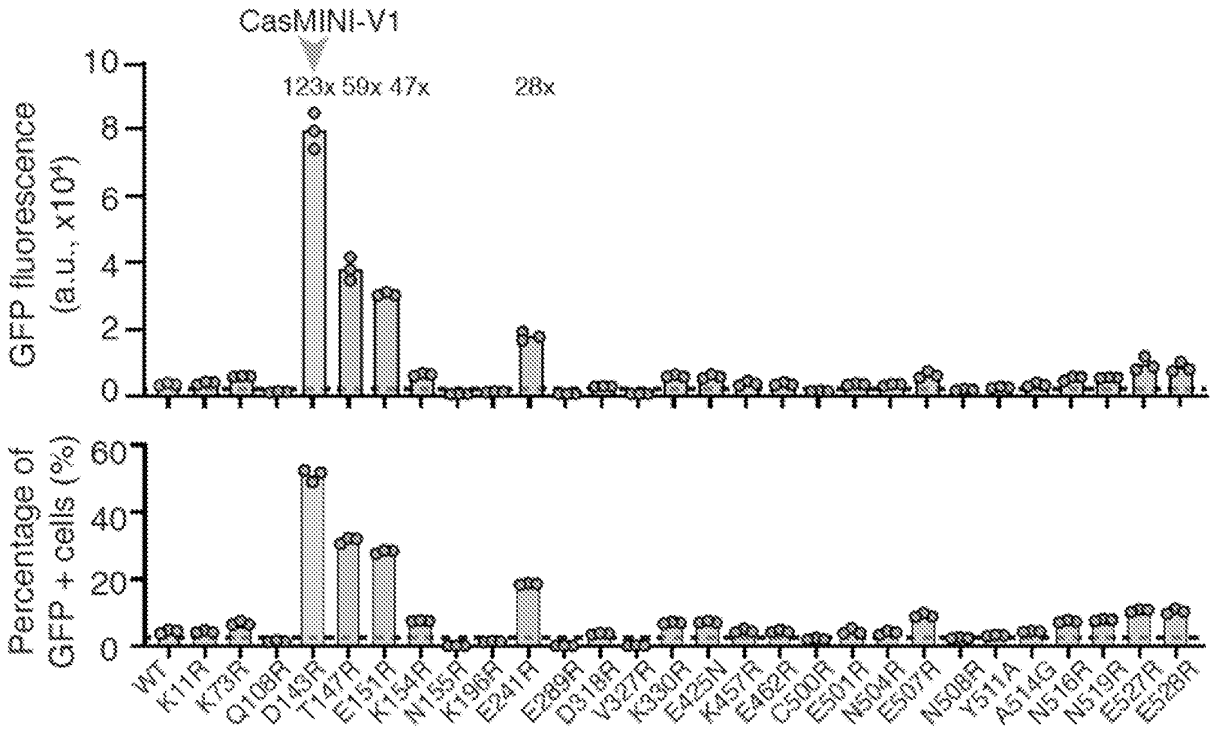


FIG. 19

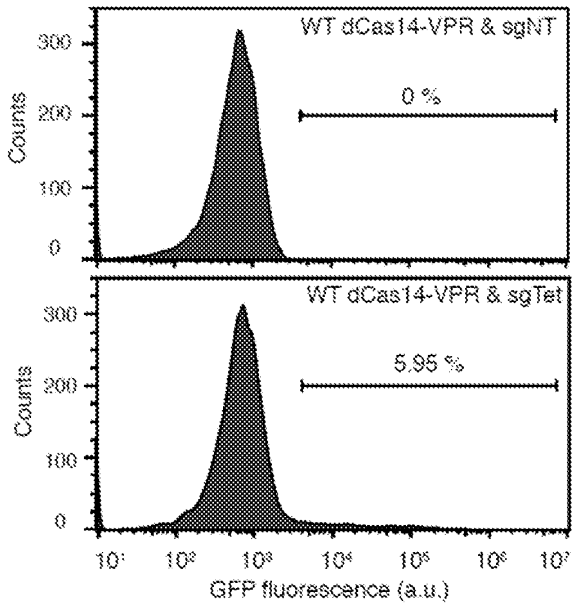


FIG. 20

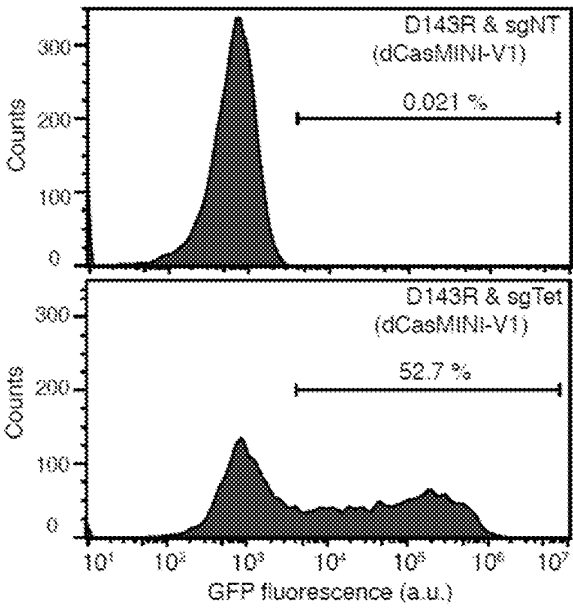


FIG. 21

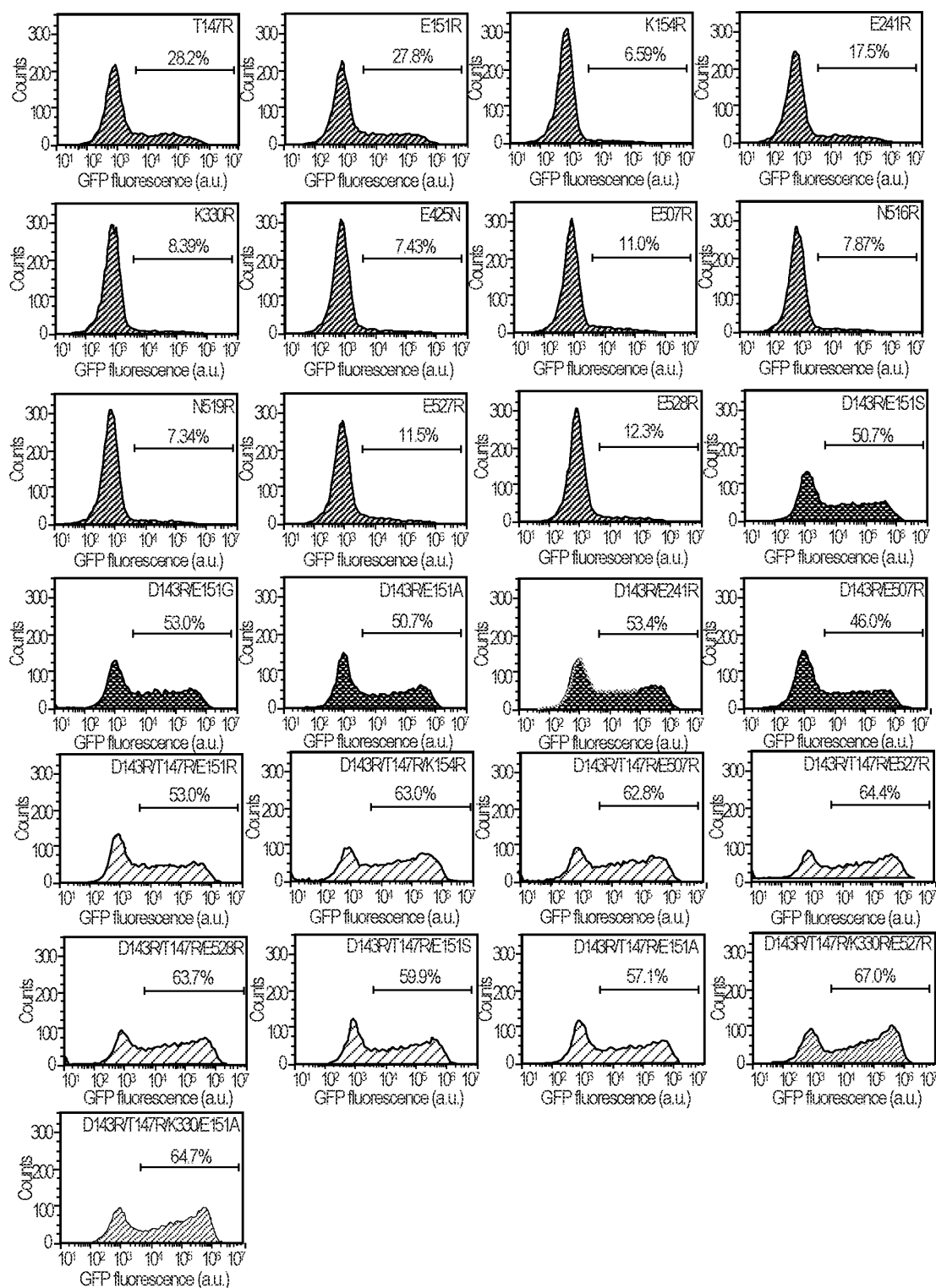


FIG. 22

SUBSTITUTE SHEET (RULE 26)

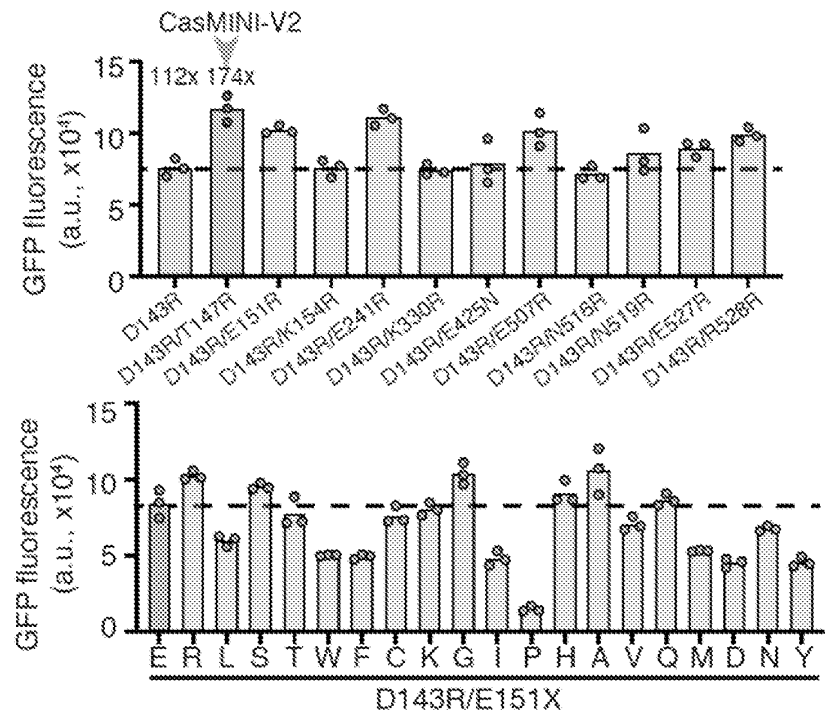


FIG. 23

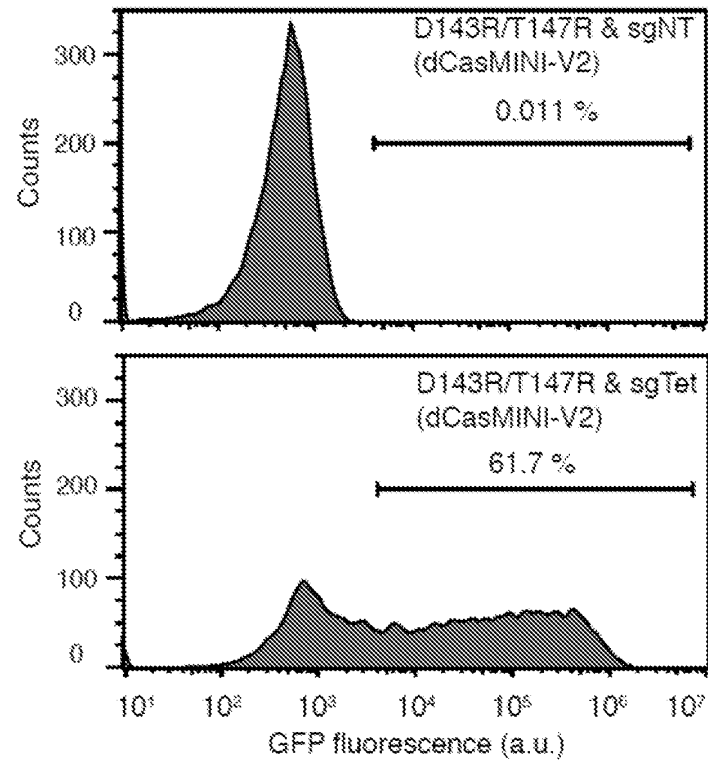


FIG. 24

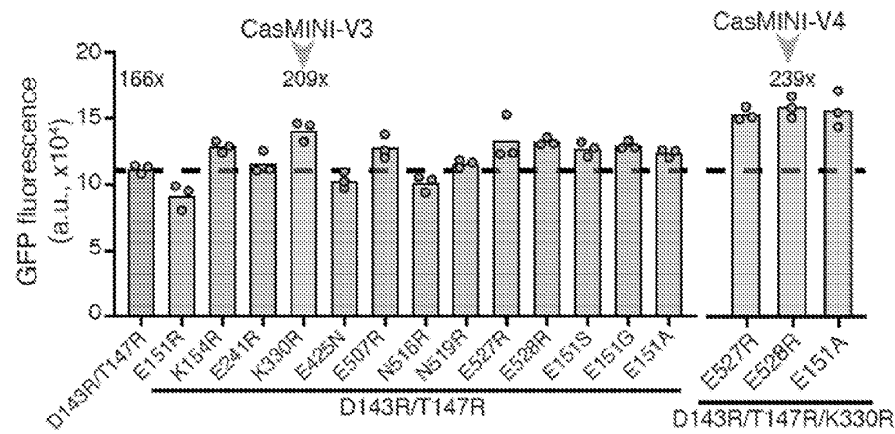


FIG. 25

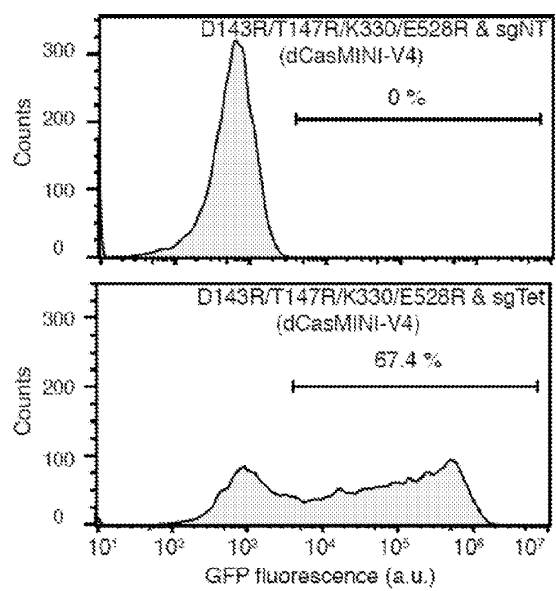


FIG. 26

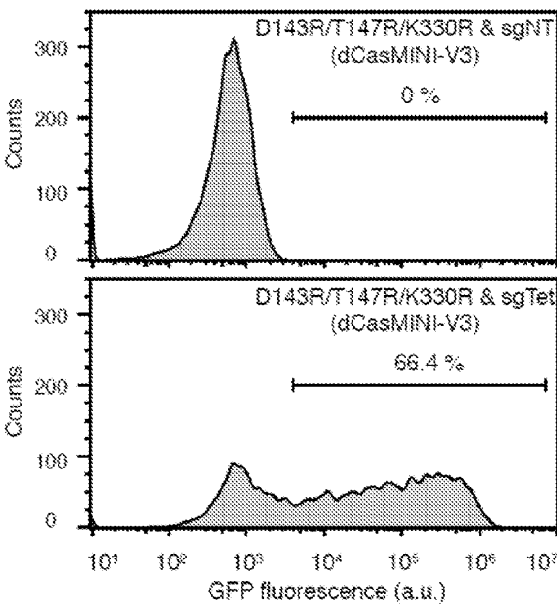


FIG. 27

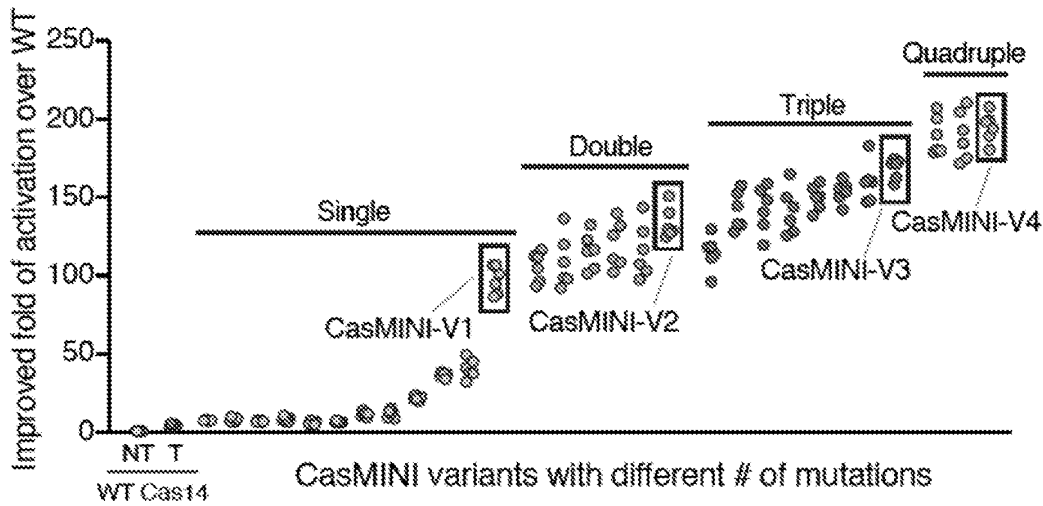


FIG. 28

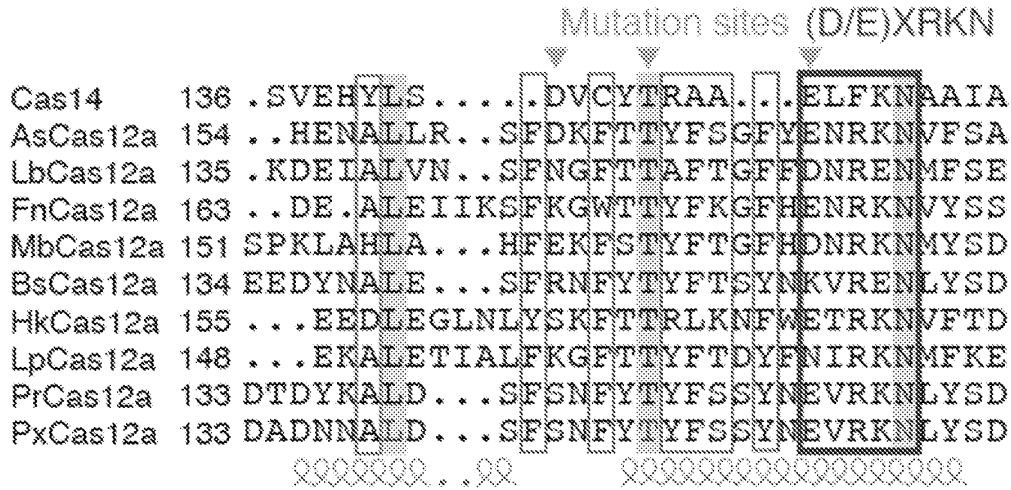


FIG. 29

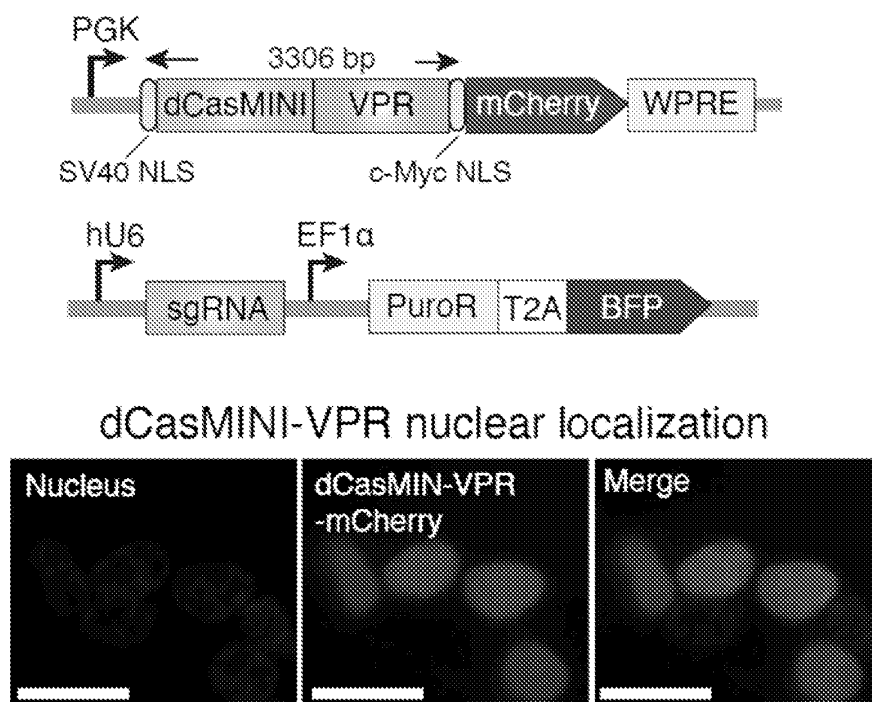


FIG. 30

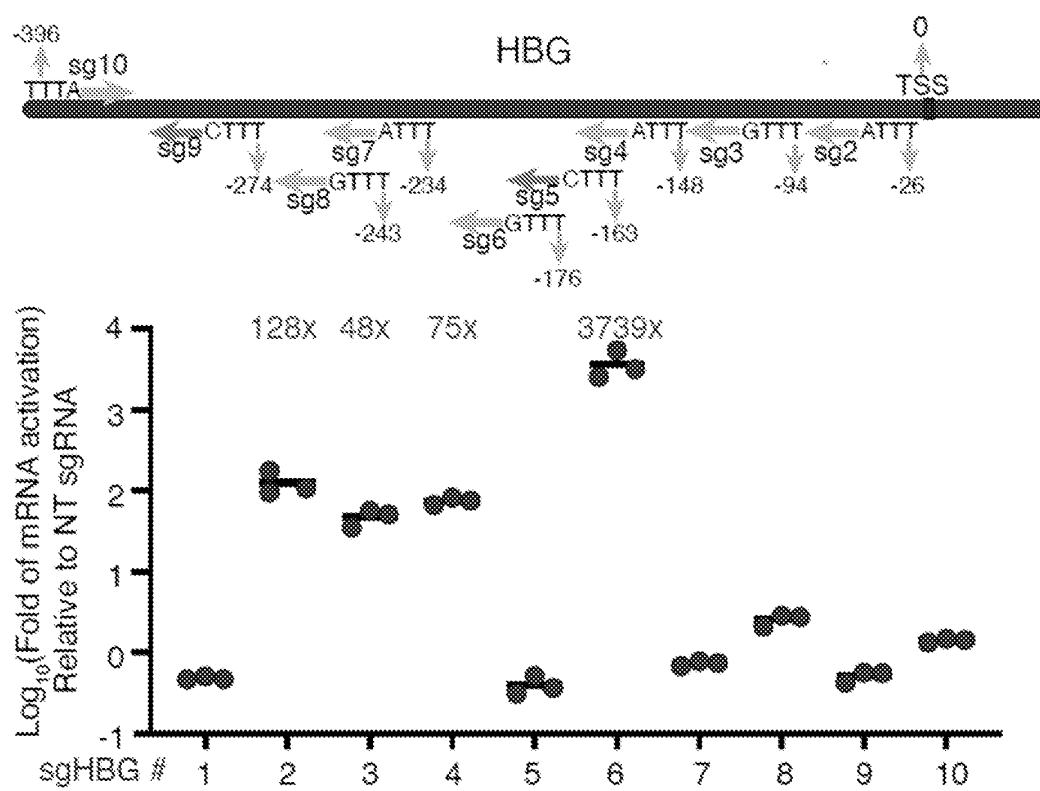


FIG. 31

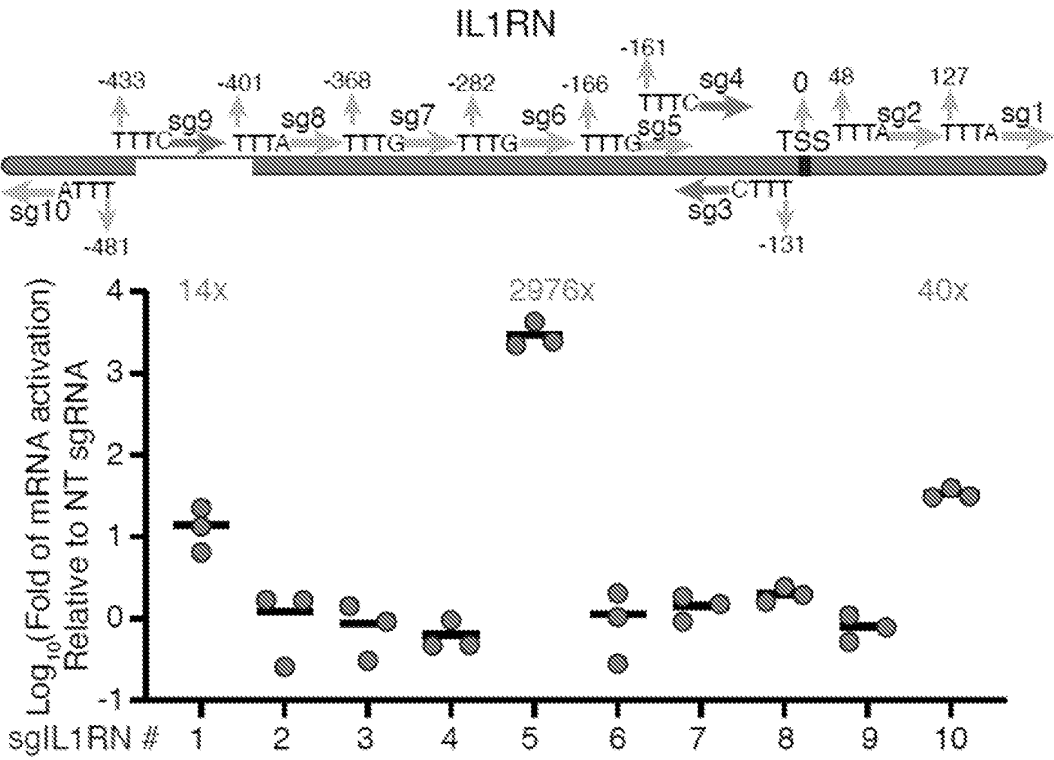


FIG. 32

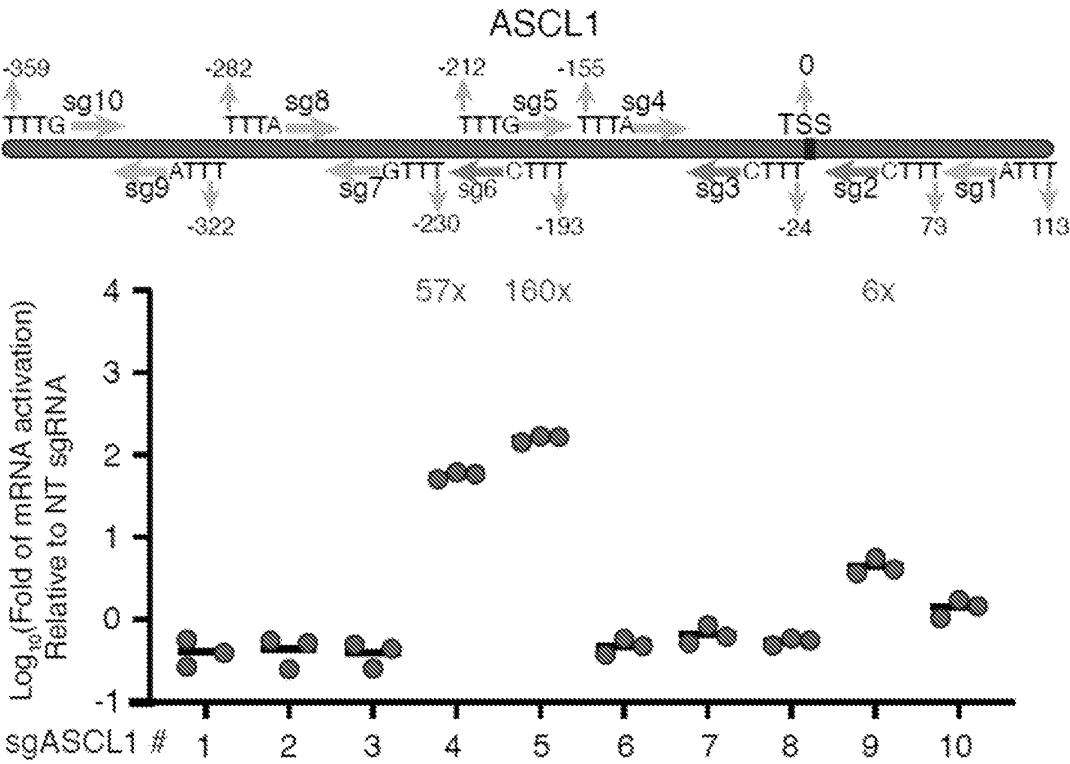


FIG. 33

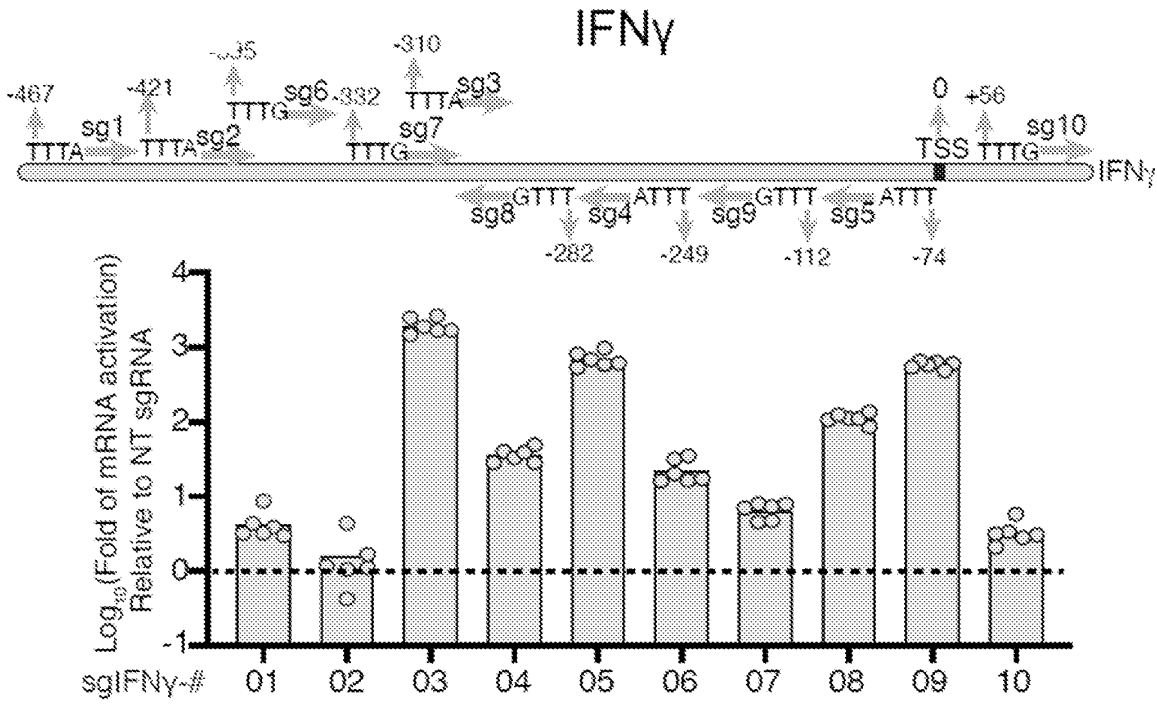


FIG. 34

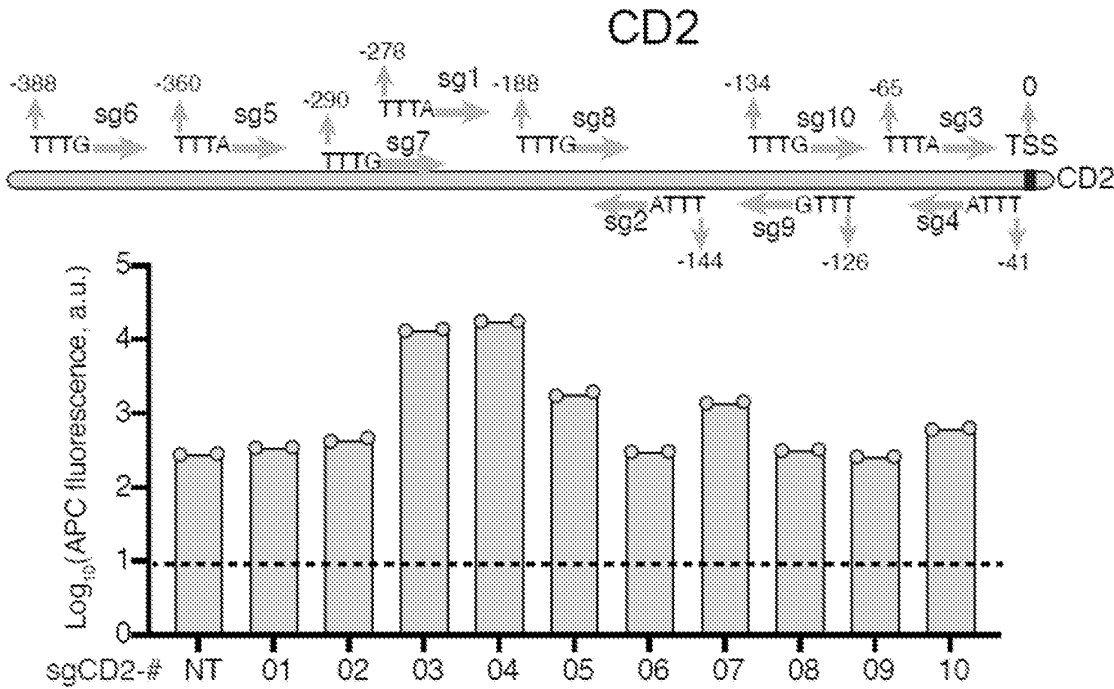


FIG. 35

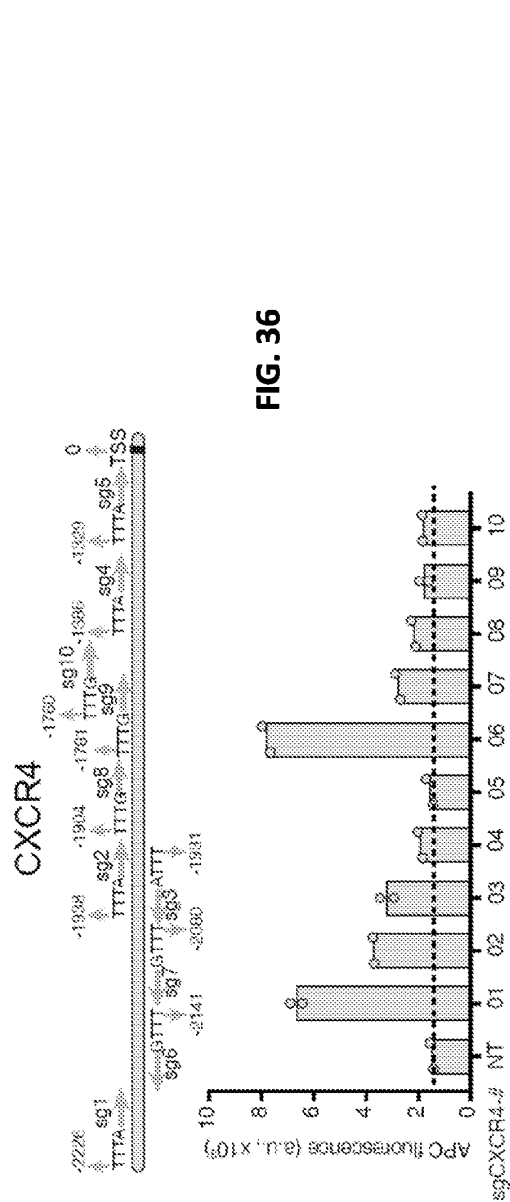


FIG. 36

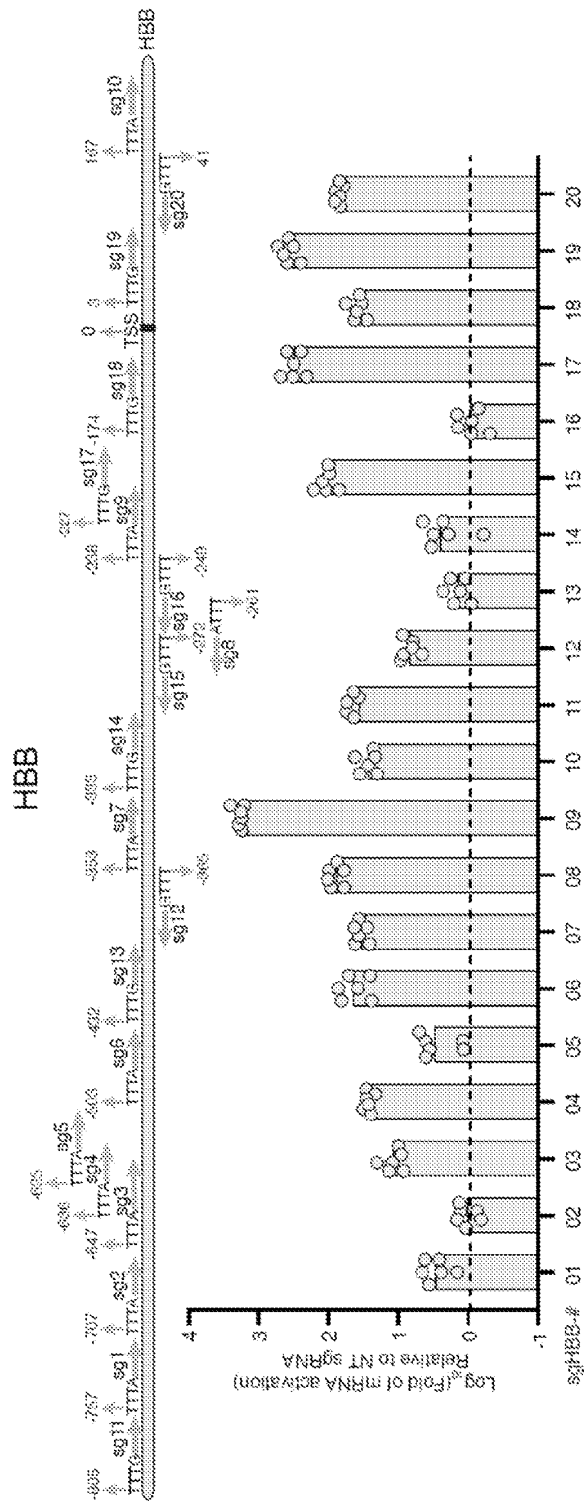


FIG. 37

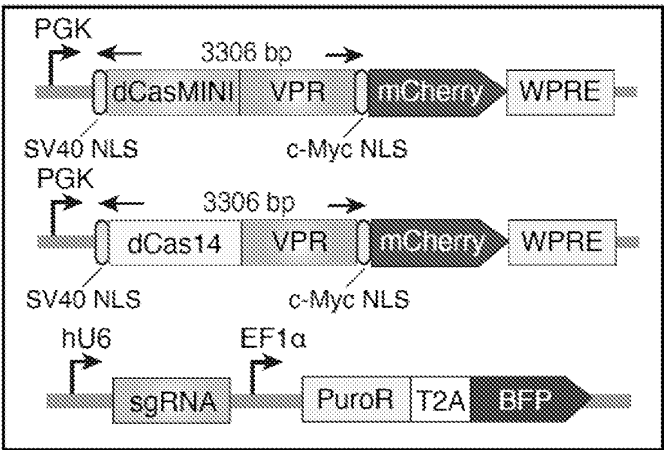


FIG. 38

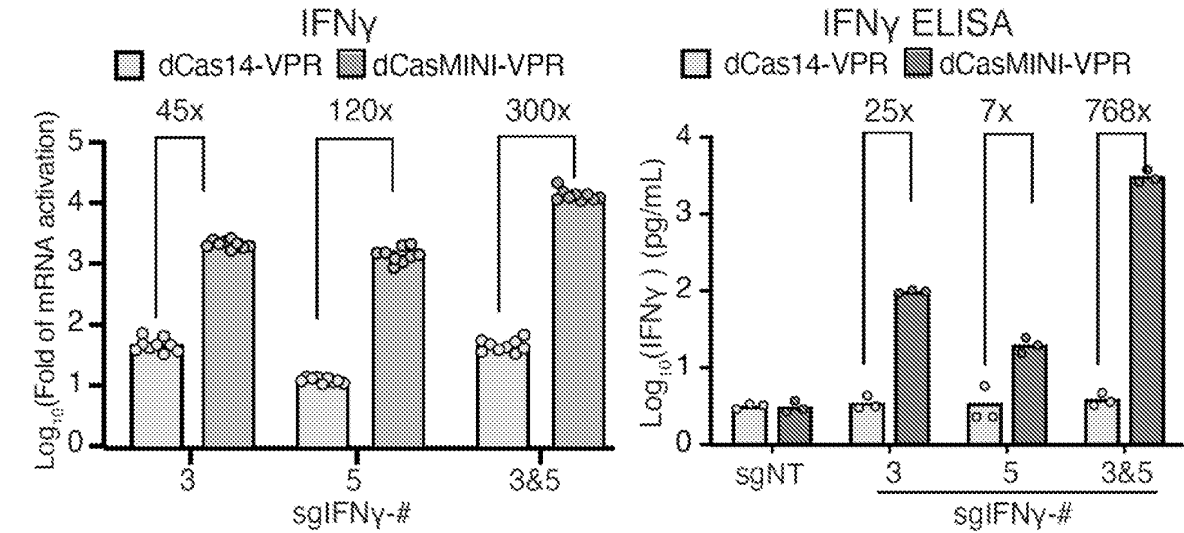


FIG. 39

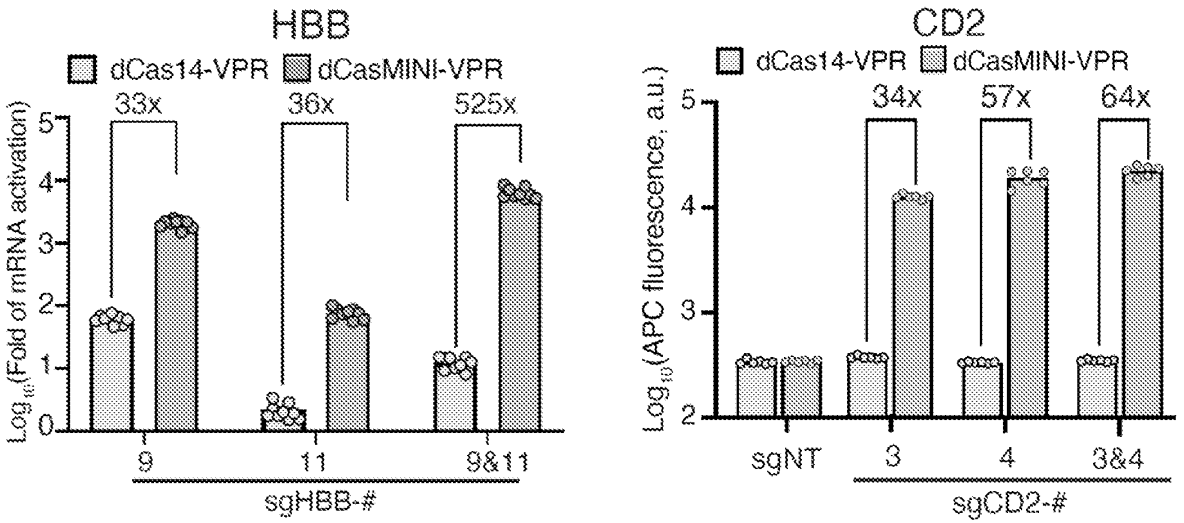


FIG. 40

FIG. 41

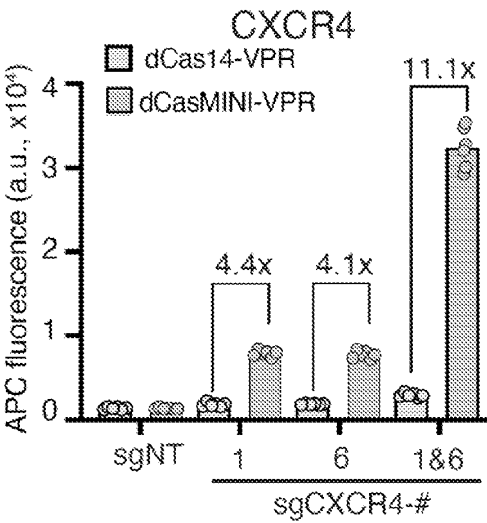


FIG. 42

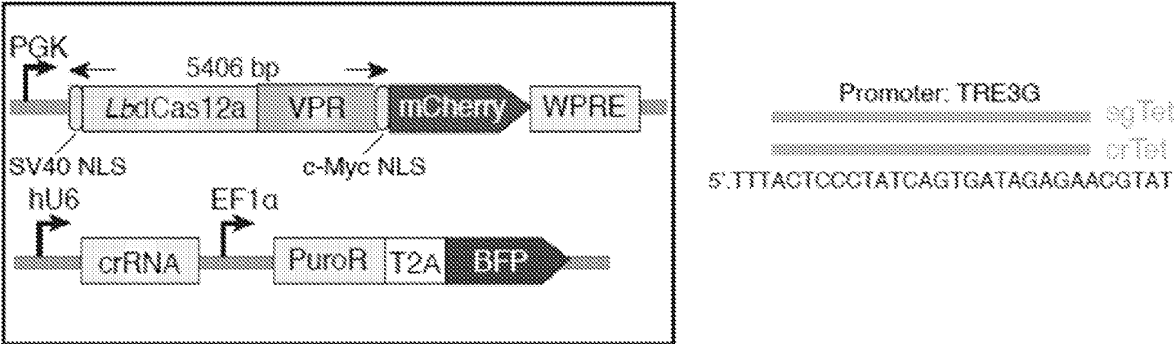


FIG. 43

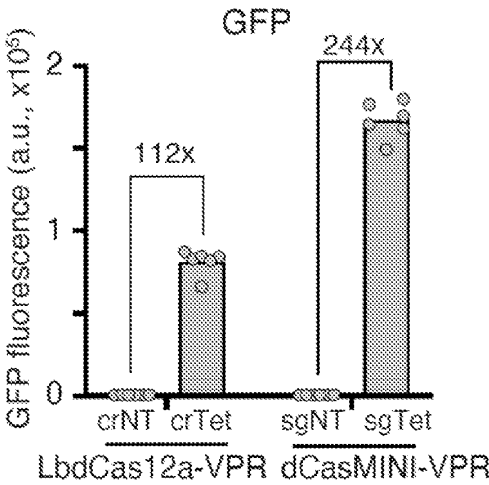


FIG. 44

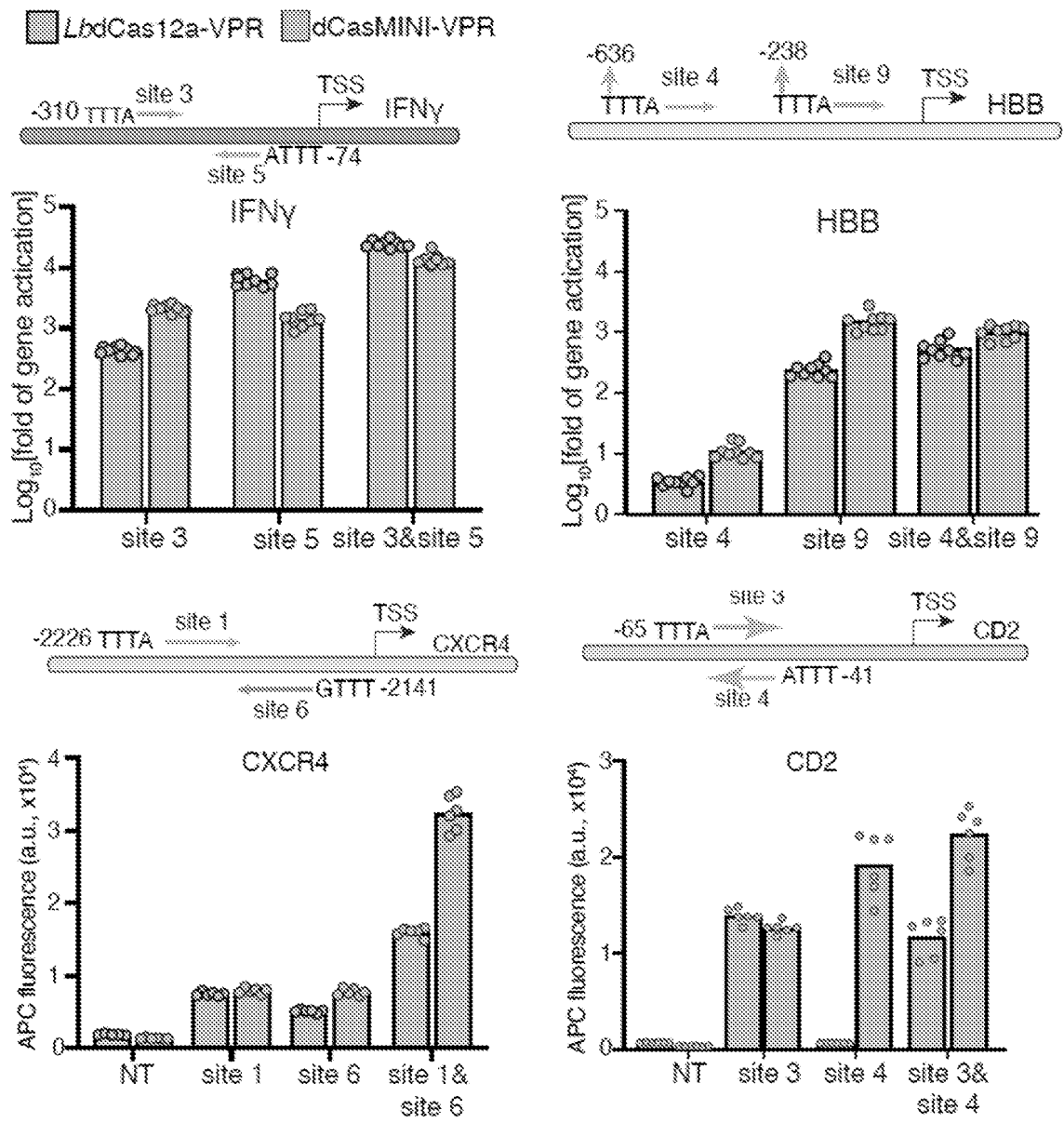


FIG. 45

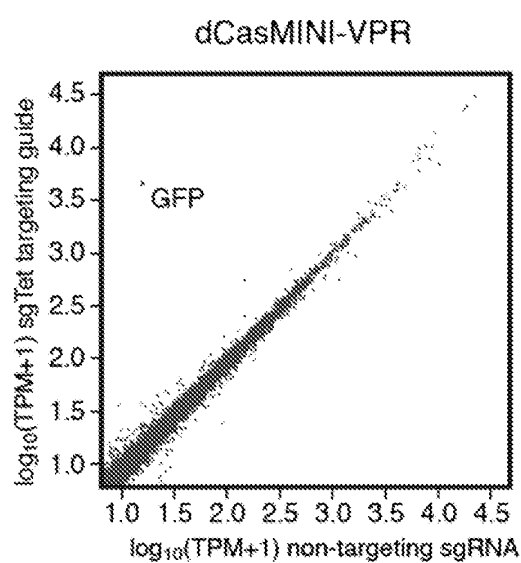


FIG. 46

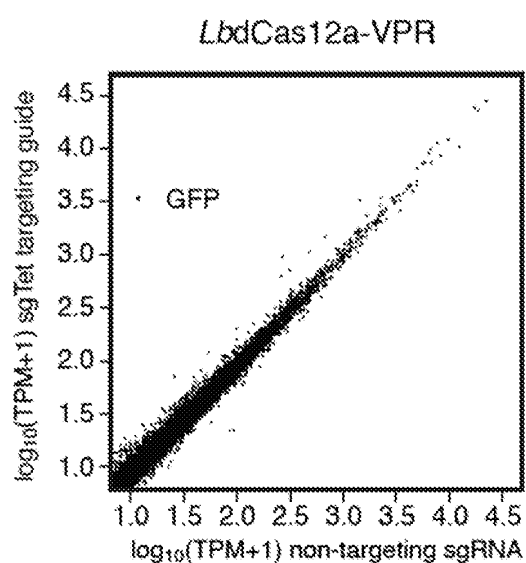


FIG. 47

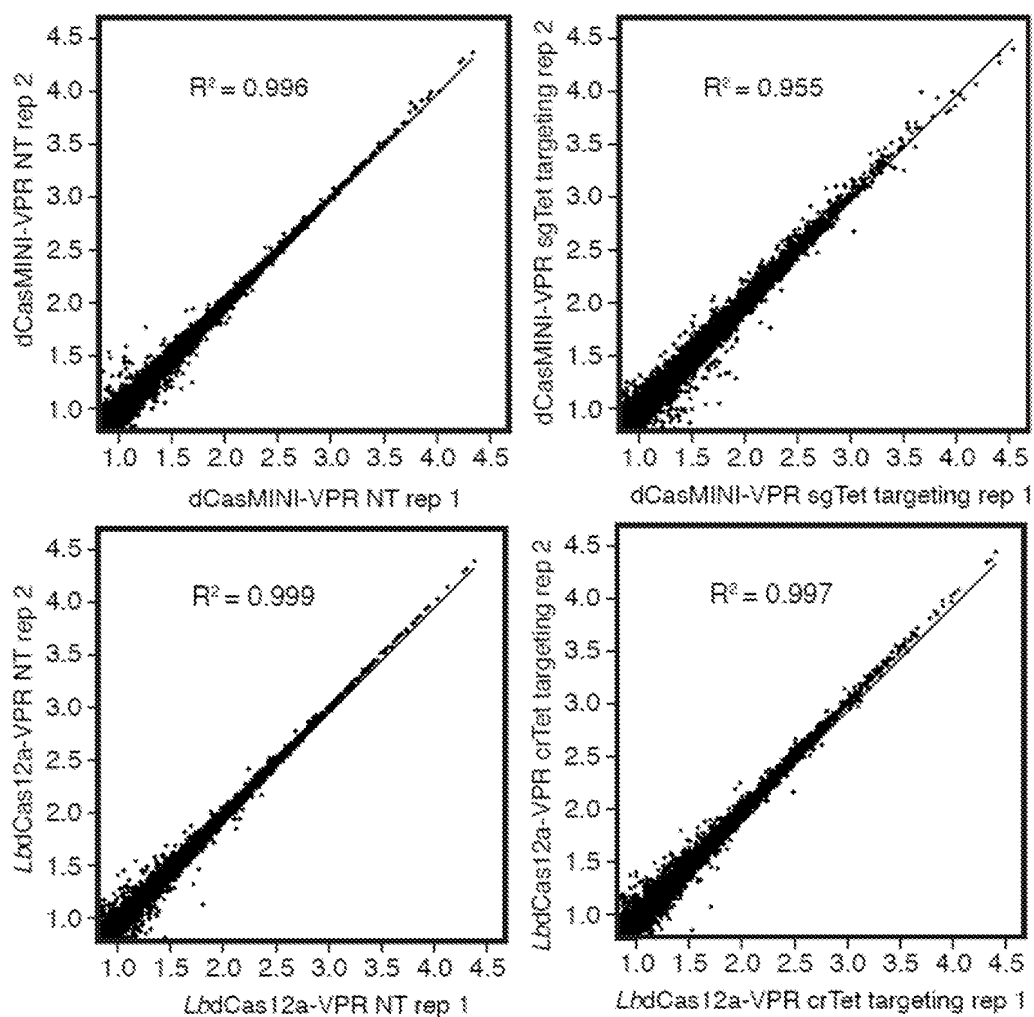


FIG. 48

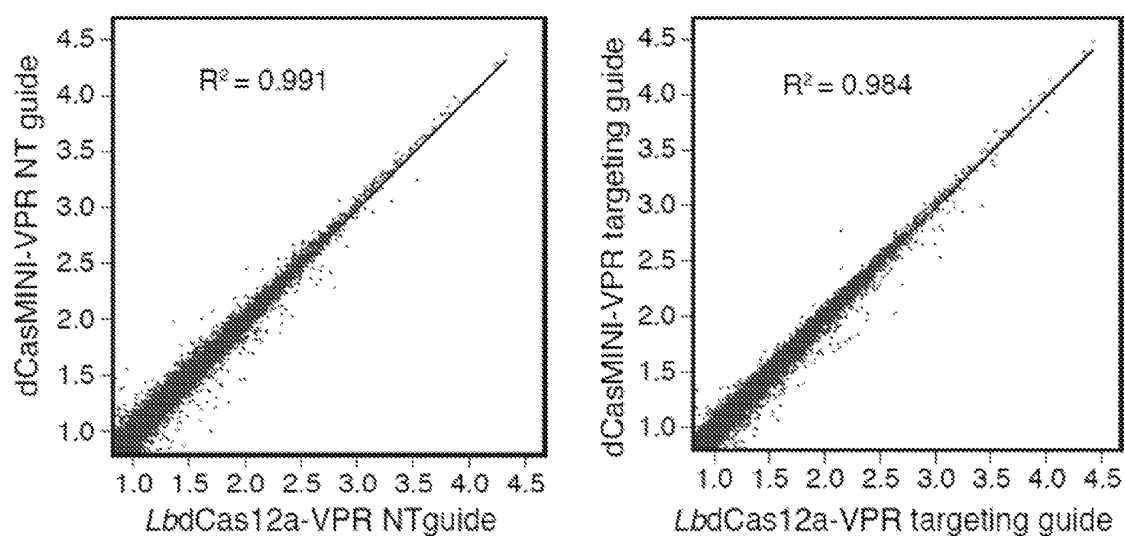


FIG. 49

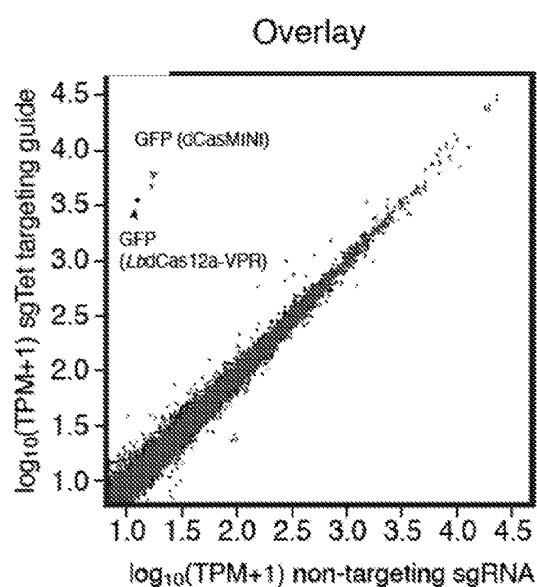


FIG. 50

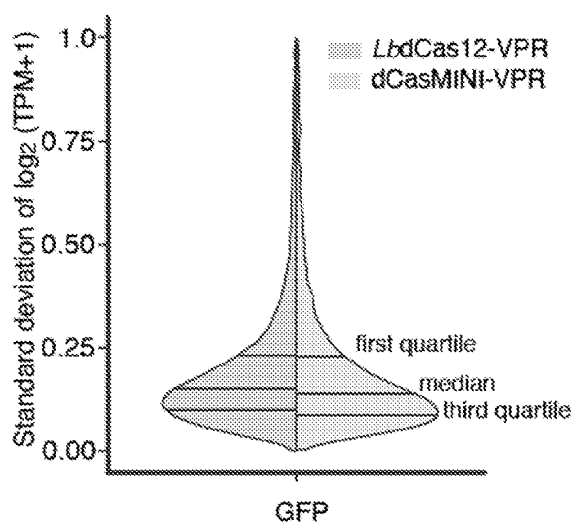


FIG. 51

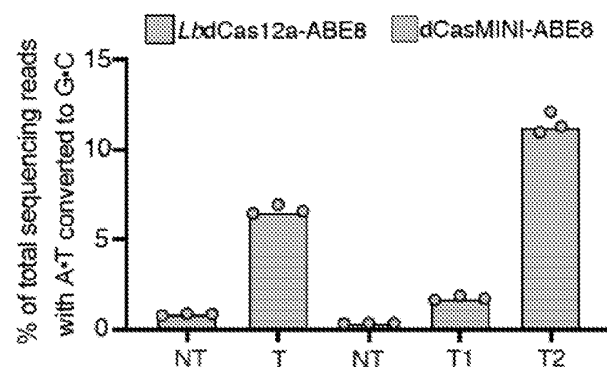
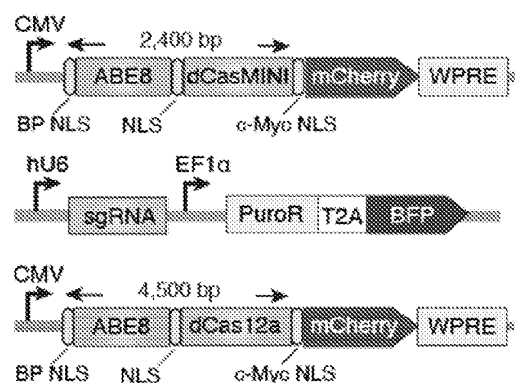


FIG. 52

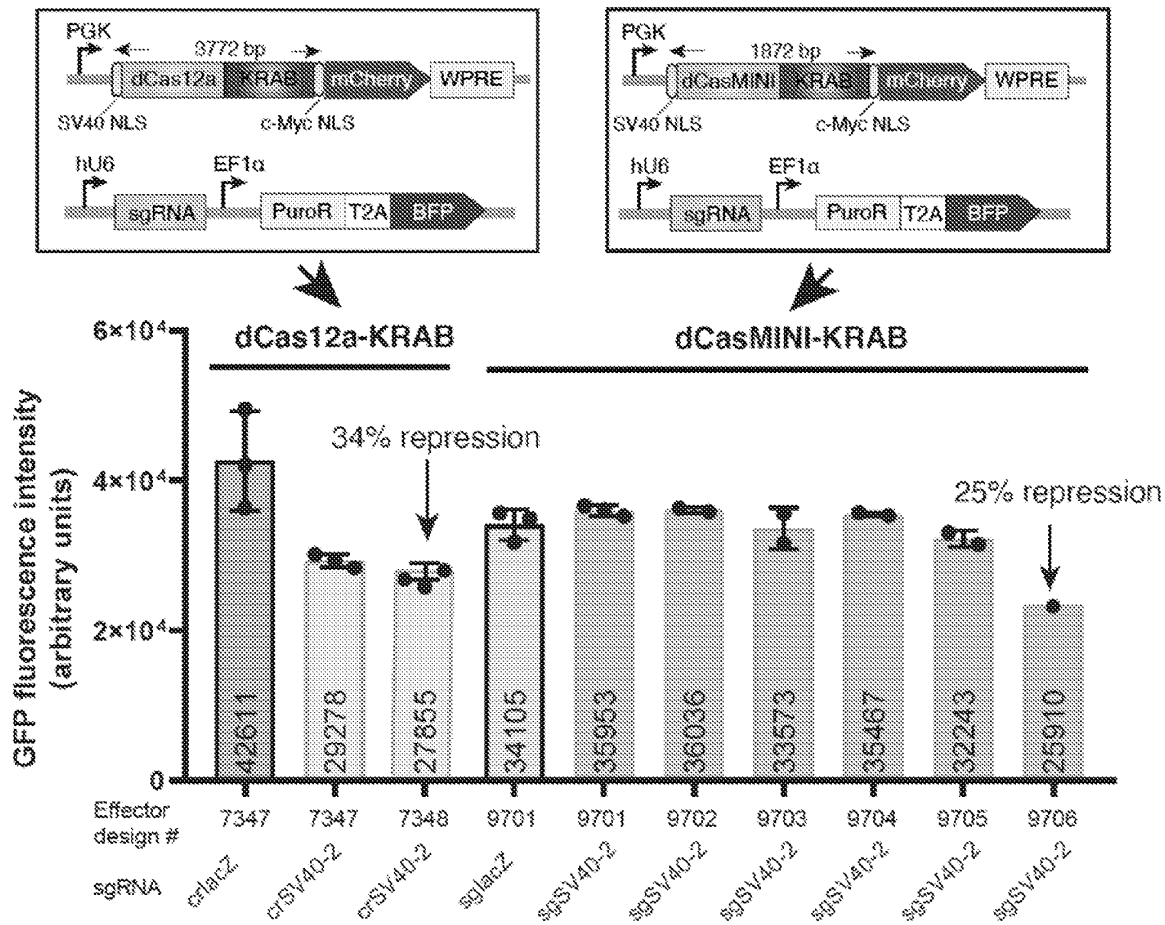


FIG. 53

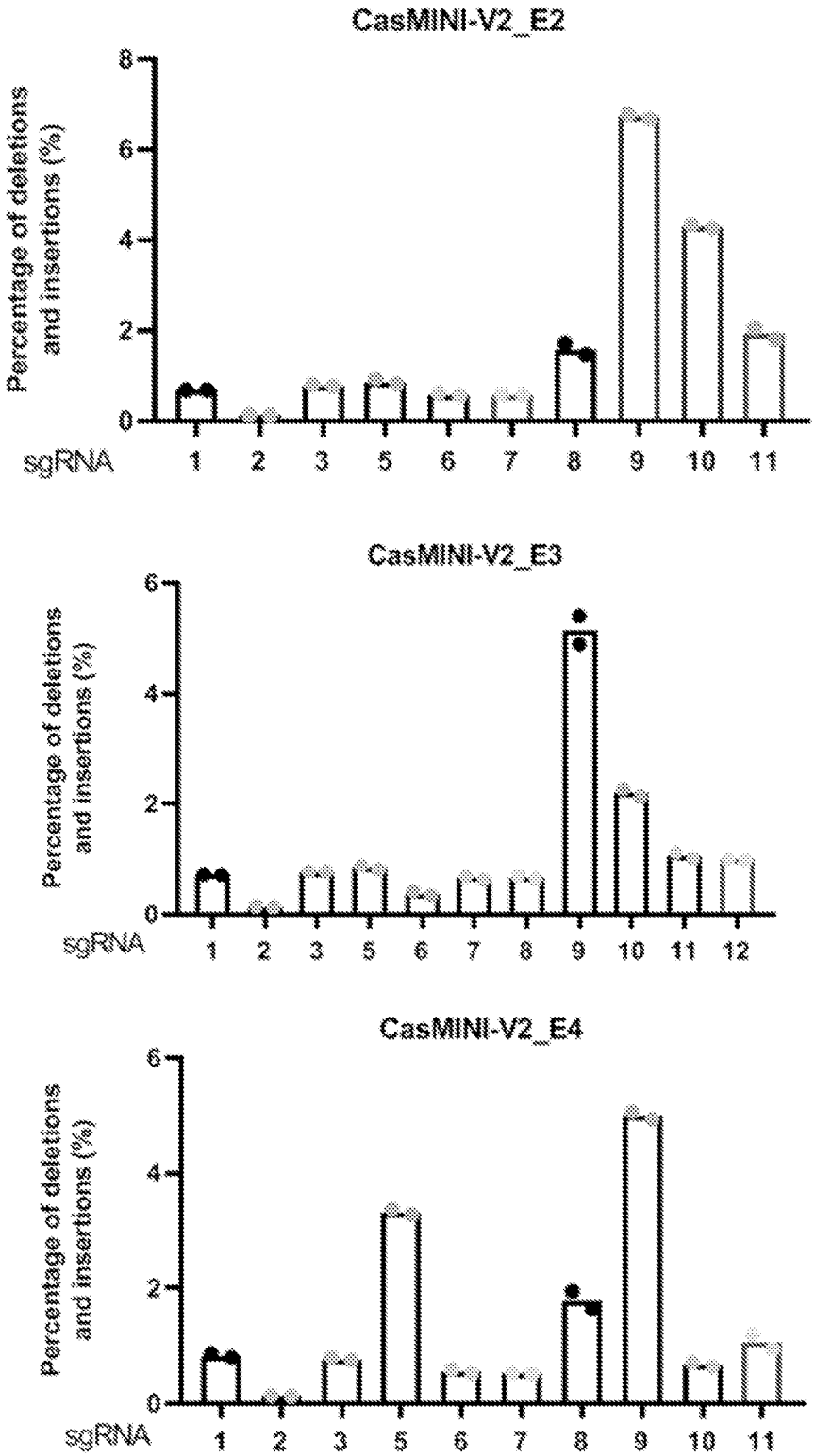


FIG. 54

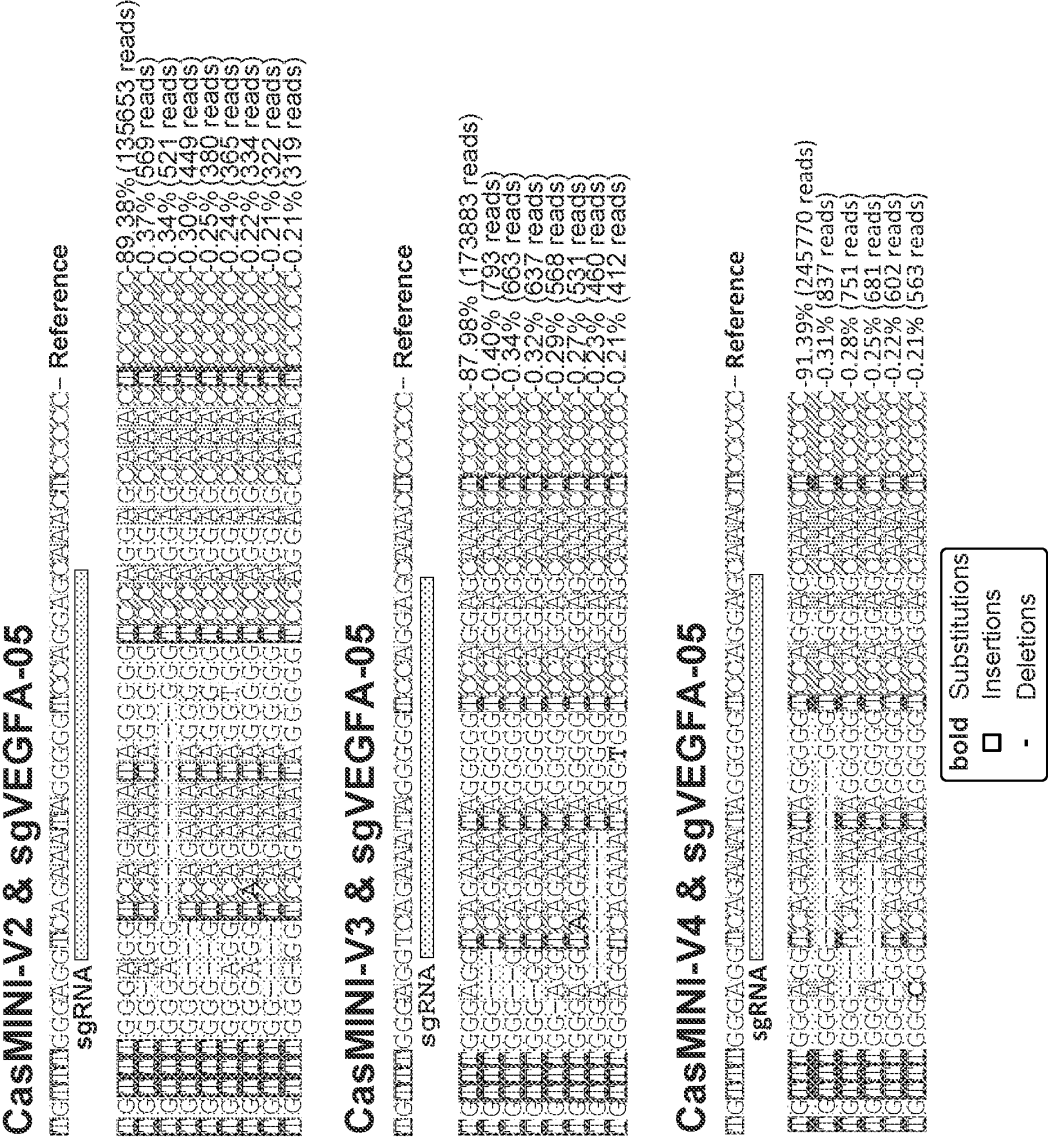


FIG. 55

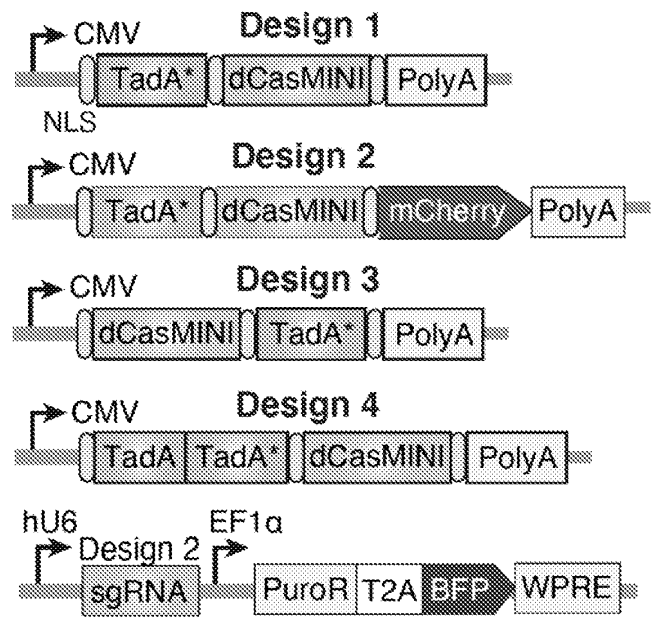


FIG. 56

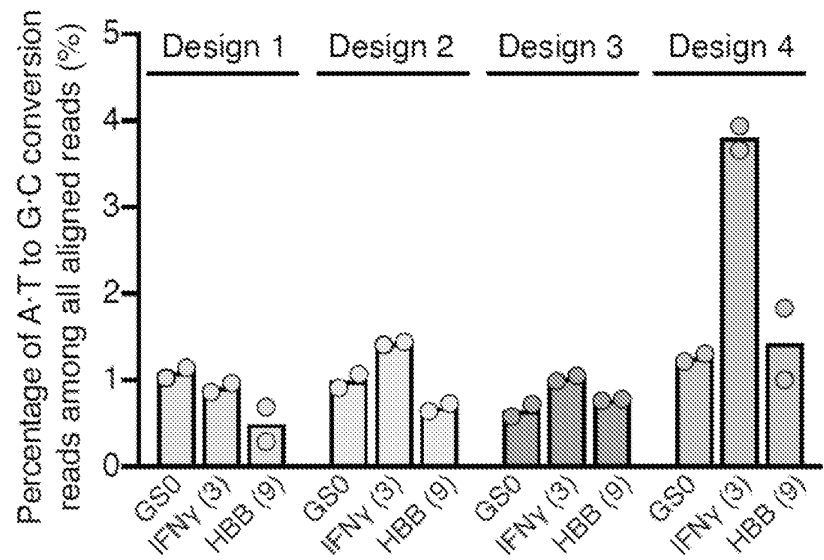


FIG. 57

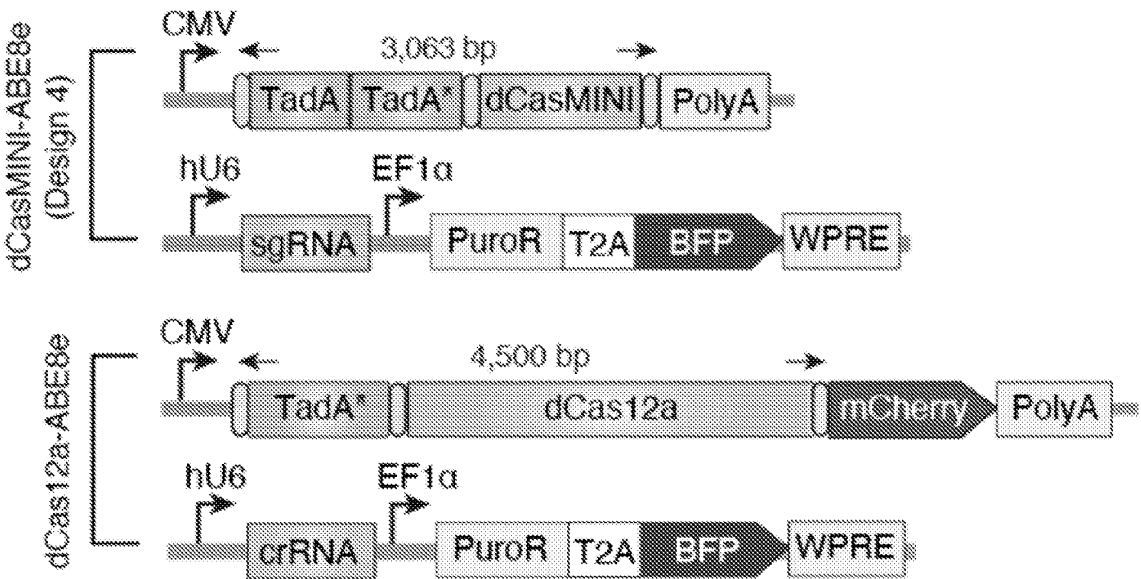


FIG. 58

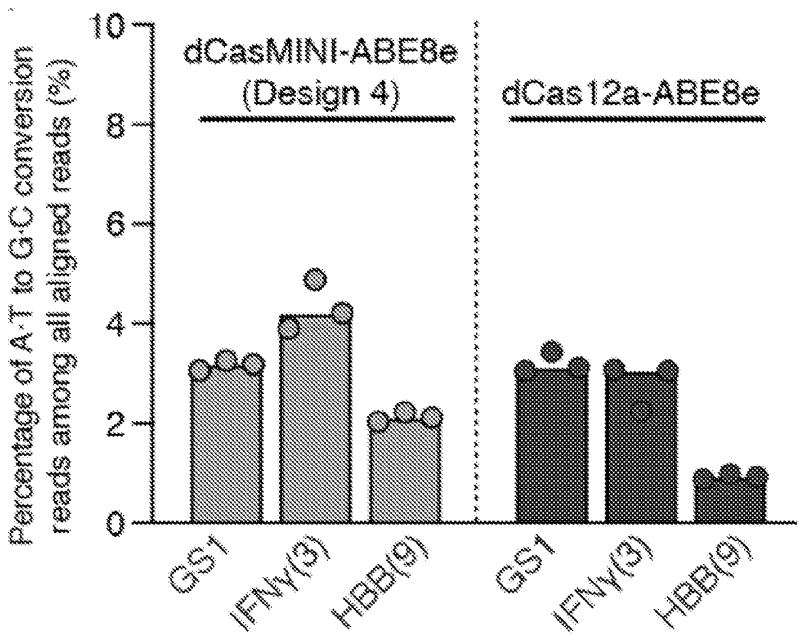


FIG. 59

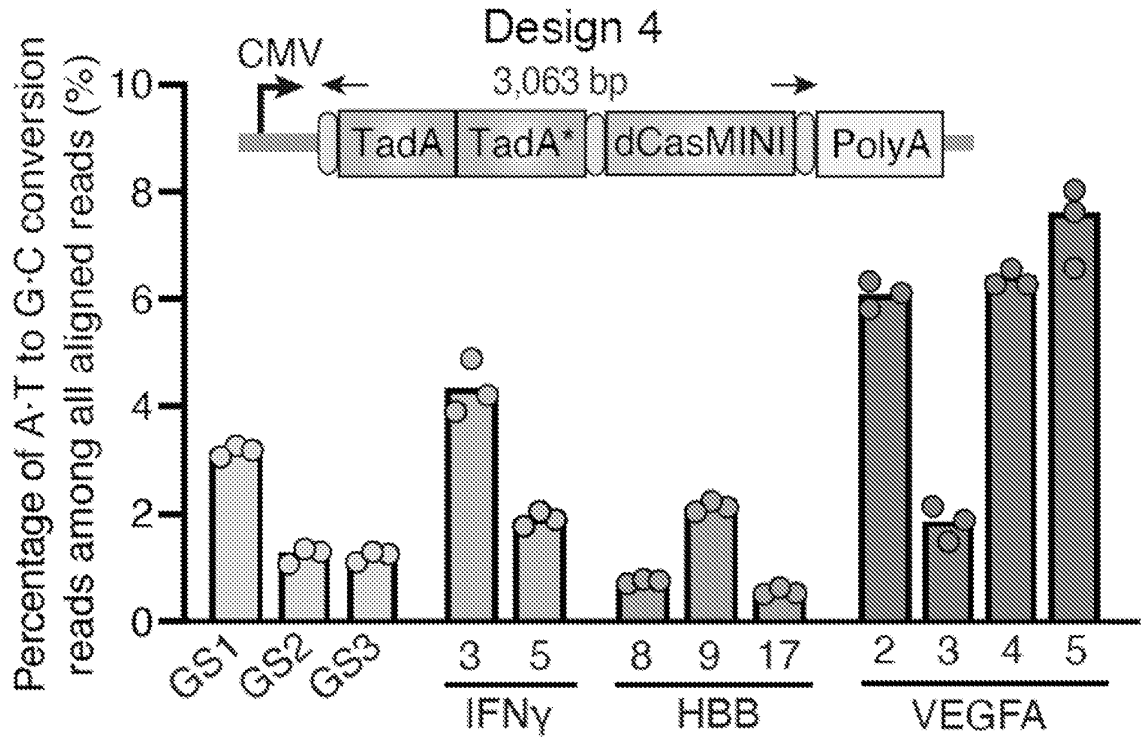


FIG. 60

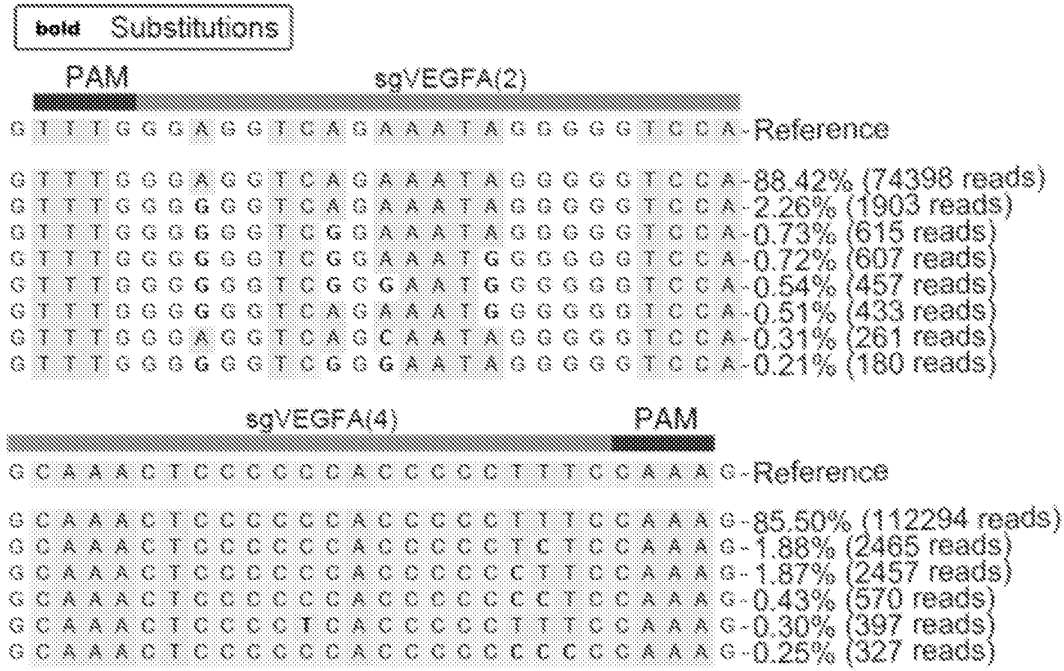


FIG. 61

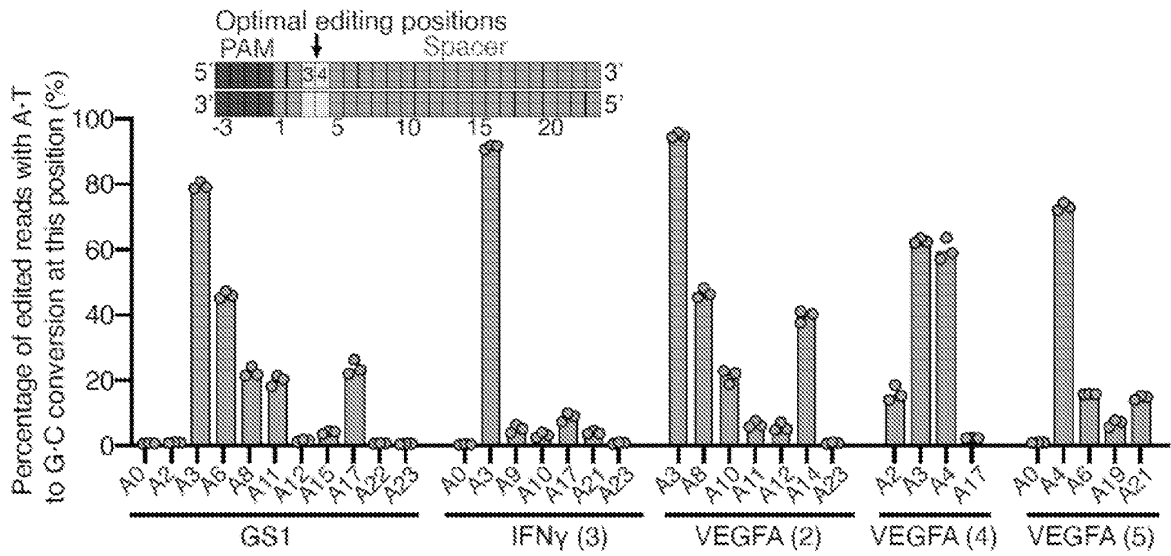
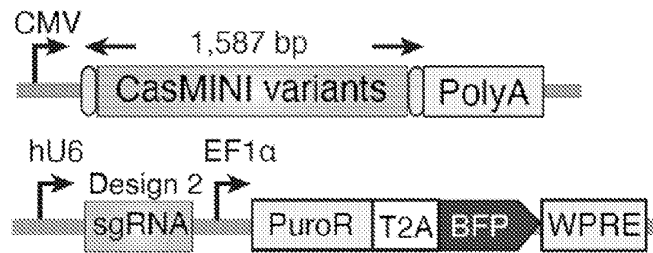


FIG. 62



CasMINI-V2	D143R/T147R
CasMINI-V3.1	D143R/T147R/E151A
CasMINI-V4	D143R/T147R/K330R/E528R

FIG. 63

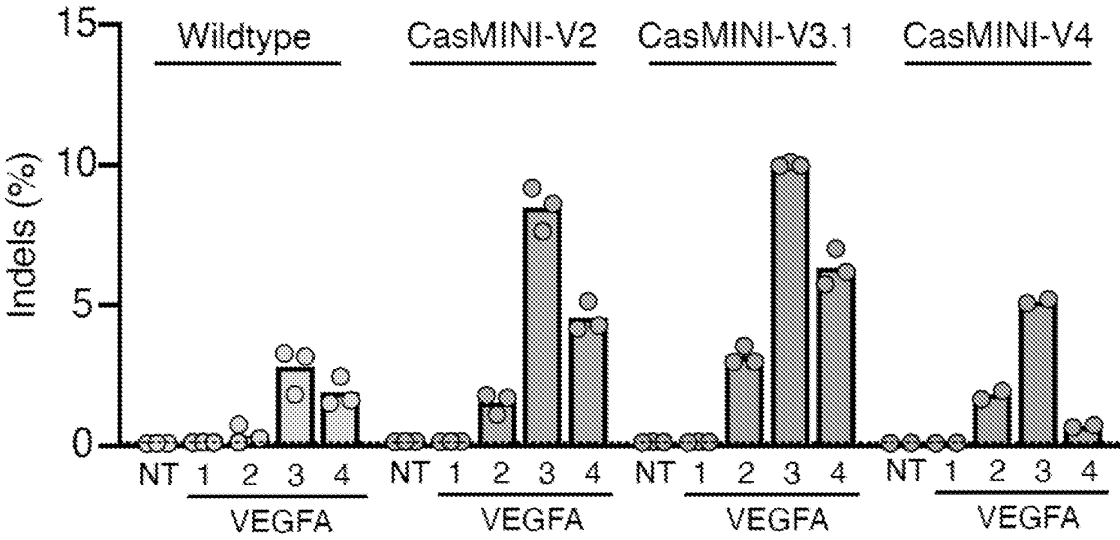


FIG. 64

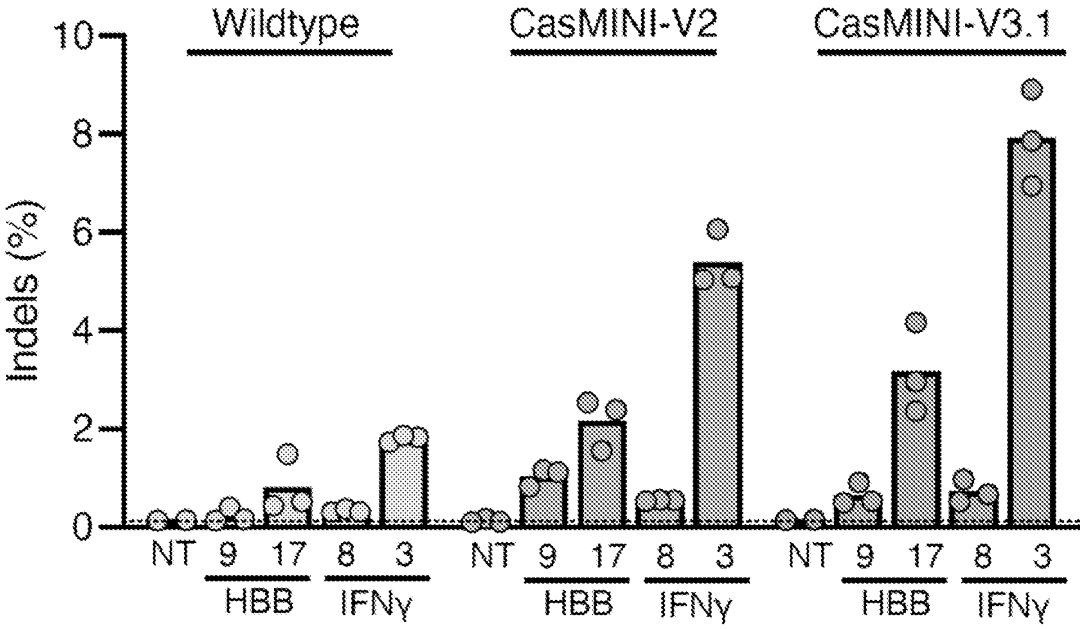


FIG. 65

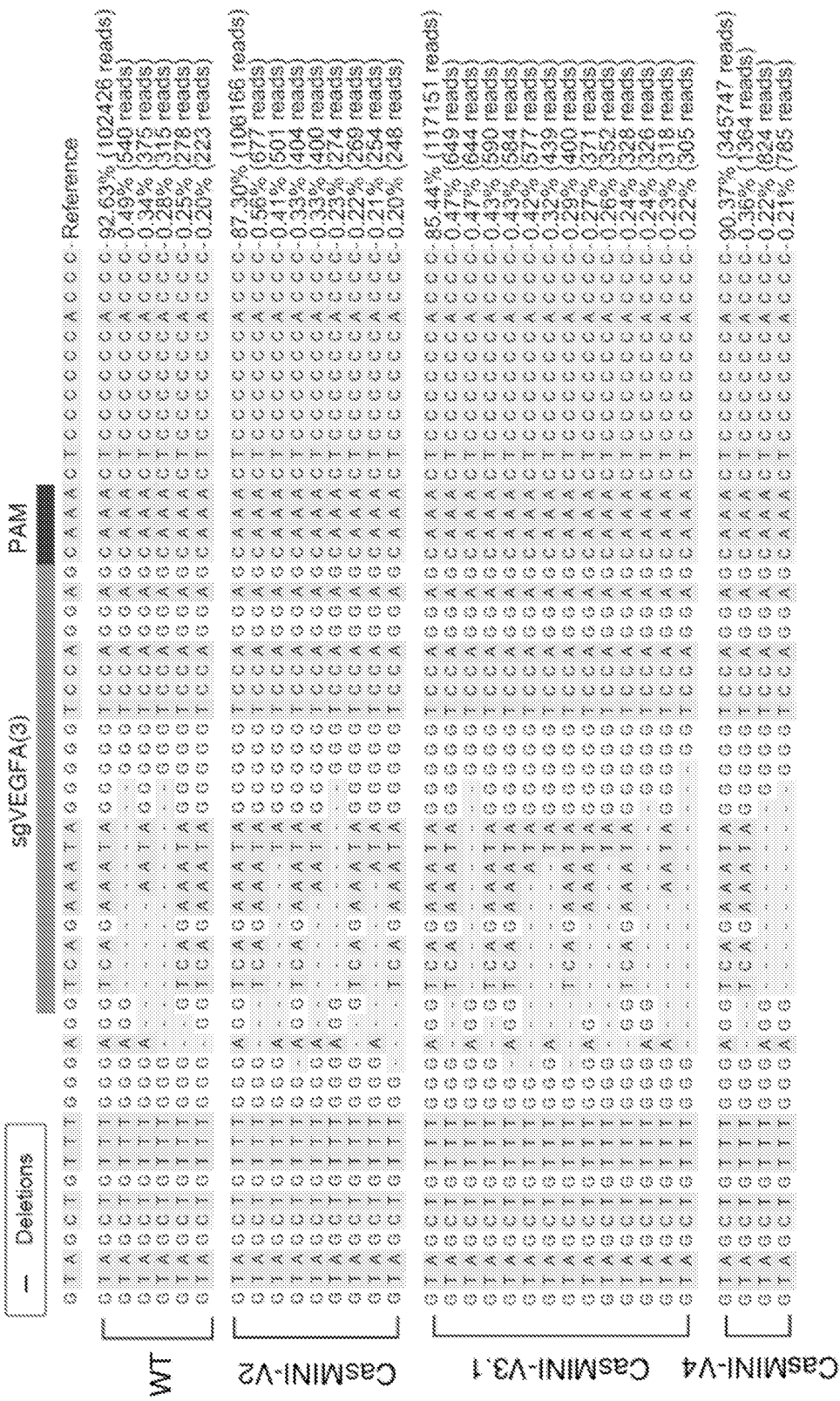


FIG. 66

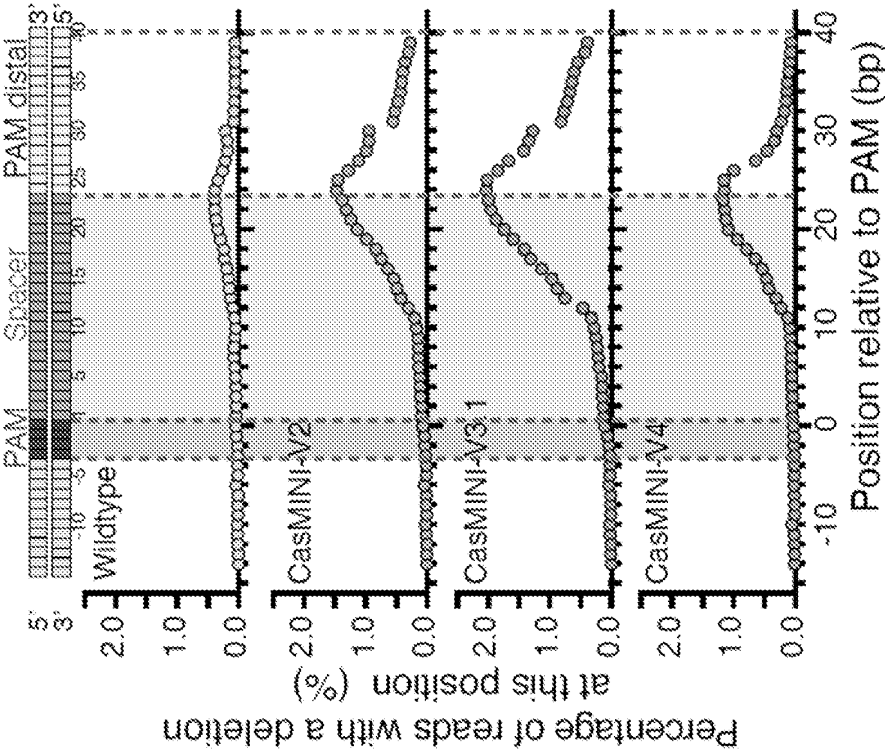


FIG. 67

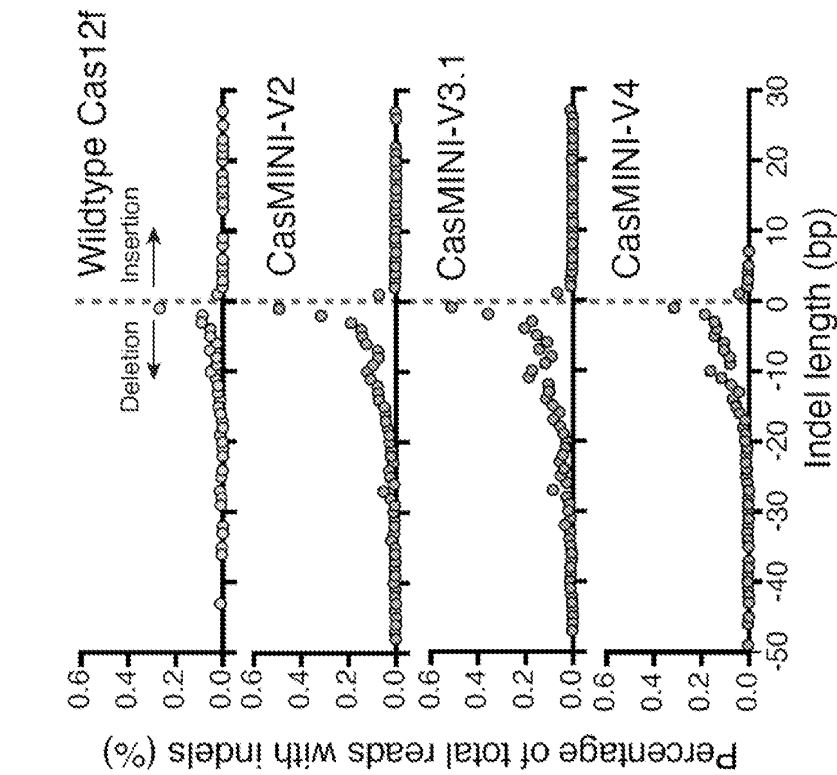


FIG. 68

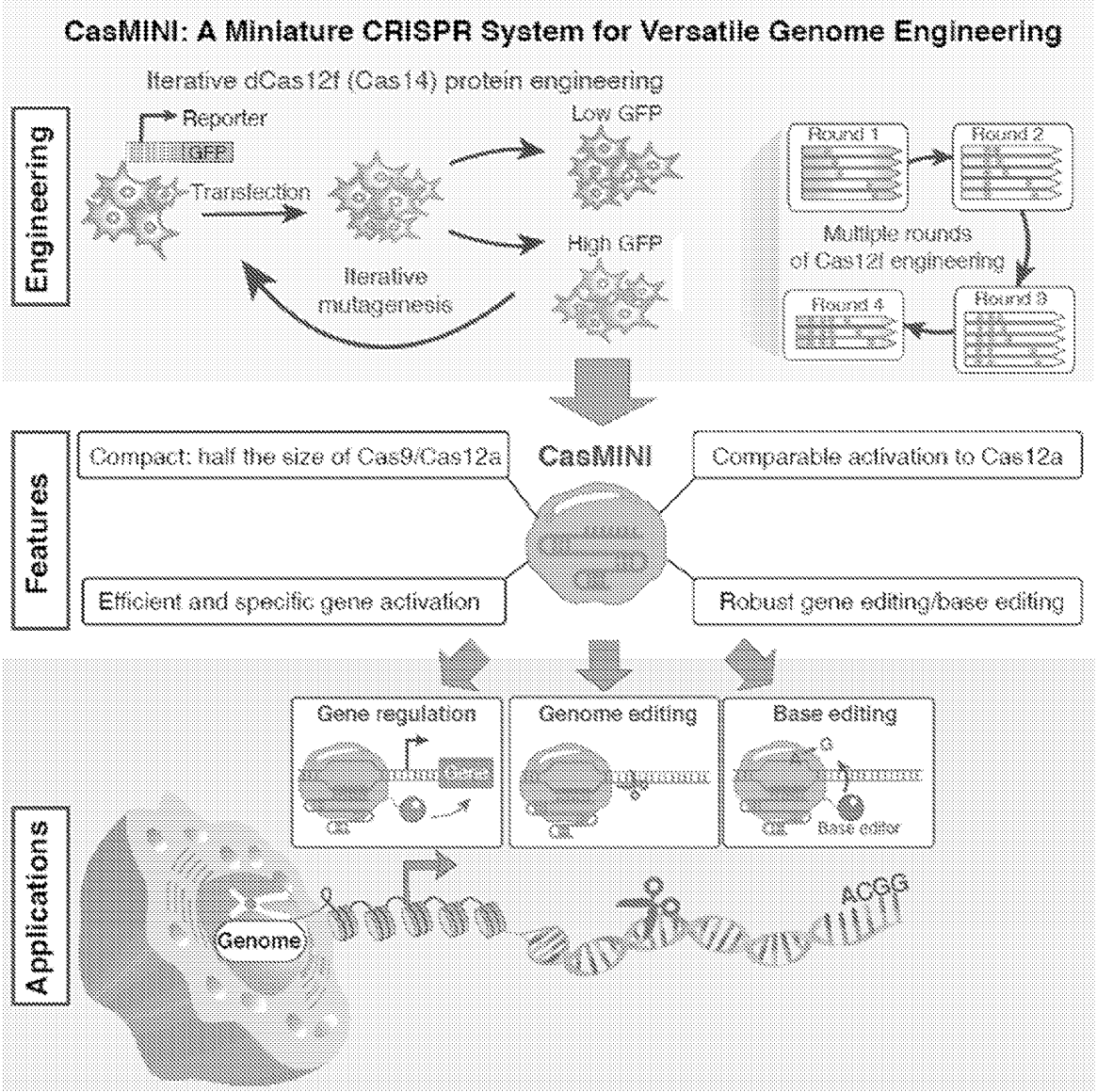


FIG. 69