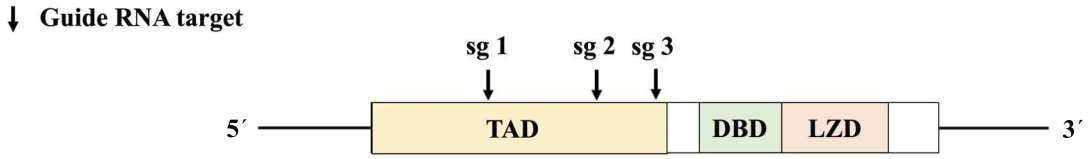
A

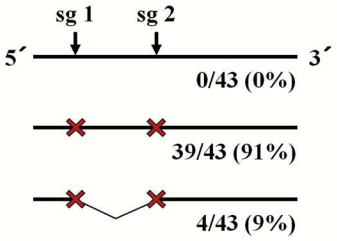


B

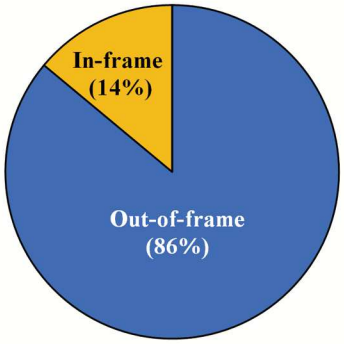
Version 9.1 : scaffold_185:139110..142823

X. tropicalis Reference	sgRNA 1	sgRNA 2	Freq.	Mutation types
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAGCGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCAAGCTGCTACCGACAGCCCTCTGCCACCATTAACTA		
***junb* indel mutation in Tyrosinase KO**				
#1 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAGCGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCAAGCTGCTACCGACAGCCCTCTGCCACCATTAACTA	9/9	Wild-type
#2 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAGCGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCAAGCTGCTACCGACAGCCCTCTGCCACCATTAACTA	10/10	Wild-type
#3 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAGCGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCAAGCTGCTACCGACAGCCCTCTGCCACCATTAACTA	10/10	Wild-type
#4 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAGCGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCAAGCTGCTACCGACAGCCCTCTGCCACCATTAACTA	8/8	Wild-type
#5 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAGCGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCAAGCTGCTACCGACAGCCCTCTGCCACCATTAACTA	9/9	Wild-type
***junb* indel mutation in JunB KO (sg 1 + 2)**				
#1 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGA----------CTCTACTACTCG	ACCTGGCCAATTACCACCC---CTGCTACCGACAGCCCTCTGCCACCATTAACTA	1/9	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGG----------	----------CCACCATTAACTA	1/9	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGA----------CTCTACTACTCG	----------	1/9	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGATGACCTGCACAACTCTACTACTC	ACCTGGCCAATTACCACCCAAGCT---ACCGACAGCCCTCTGCCACCATTAACTA	1/9	Out-of-frame
	TCACAGTGGCCCGGGGGTCATA---------AGCGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCAAGCT---ACCGACAGCCCTCTGCCACCATTAACTA	1/9	In-frame
	TCACAGTGGCCCGG----------TGGCCAACTCTACTACTCG	ACCTGGCCA-TTACCA------CTGCTACCGACAGCCCTCTGCCACCATTAACTA	1/9	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTC--ATAAGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACC----CTGCTACCGACAGCCCTCTGCCACCATTAACTA	1/9	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGA----------CTCTACTACTCG	ACCTGGCCAATTACCACC----------ATTAACTA	1/9	Out-of-frame
	TCACAGTGGCCCGGGGGTCATA----------GGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACC----------GACAGCCCTCTGCCACCATTAACTA	1/9	In-frame
#2 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGCCAG----GTGGCCTACTCTACTACTCG	ACCTGGCCAATTACCACCC----------GACAGCCCTCTGCCACCATTAACTA	3/8	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAGGG----------	----------CTACCGACAGCCCTCTGCCACCATTAACTA	2/8	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCG----GTGGCCTACTCTACTACTCG	ACCTGGCCAATTACCACCCAAGCT---ACCGACAGCCCTCTGCCACCATTAACTA	1/8	Out-of-frame
	TCACAGGGGCCCGGGGGTCATAAGTGGTCCG----GTGGCCTACTCTACTACTCG	ACCTGGCCAATTACCACC----------GACAGCCCTCTGCCACCATTAACTA	1/8	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCG----GTGGCCTACTCTACTACTCG	ACCTGGCCAATTACCACC----------GACAGCCCTCTGCCACCATTAACTA	1/8	Out-of-frame
#3 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAG---TGGCCAACTCTACTACTCG	ACCTGG----------TACCGACAGCCCTCTGCCACCATTAACTA	2/10	Out-of-frame
	TCACAGTGGCCCGG----------TGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACC----CTGCTACCGACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCG----GTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCAC-----CTGCTACCGACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGATCGG---CCACCTCTACTACTCG	ACTTGG----------TACCGACCTCCCTCTGCCACCATTATCTA	1/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAG---TGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACC----------GACAGCCCTCTGCCACCATTAACTA	1/10	In-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGACACACAGAGTGGCCAACTCTACT	ACCTGGCCAATTACCACCCA----GCTACCGACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAG-----GCCAACTCTACTACTCG	ACCTGGCCAATTACCACC----------GACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	----------CGGTTGCCAACTCTACTACTCG	ACCTG----------CTACCGACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	----------CGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACC----------GACAGCCCTCTGCCACCATTAACTA	1/10	
#4 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTCCG----GTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCA----------CAGCCCTCTGCCACCATTAACTA	2/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGG----------CCAACTCTACTACTCG	ACCTGGCCAATTACCACCCAACAGAGGGCTACCGACAGCCCTCTGCCACCATTAA	2/10	In-frame
	TCACAA----------	ACCTGGCCAATTACCAC-----CTGCTACCGACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAGTGG----CCACTCTACTACTCG	ACCTGGCCAATTACCACC----CTGCTACCGACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	TCACAGTGGCCCGGAGGTCATAAGTGGTCCG----GTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCA----------CAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCA--CGGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCAC-----CTGCTACCGACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCGAG---TGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCC----------GACAGCCCTCTGCCACCATTAACTA	1/10	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTCCG----GTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCTACCACCCTACTGCTACCGACAGCCCTCTGCCACCA	1/10	Out-of-frame
#5 tadpole	TCACAGTGGCCCGGGGGTCATAAGTGGTC--ATAAGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCGACAGCCCTCTGCCACCATTAACTAGGGCTGCTACCG	2/6	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTC--ATAAGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACC----------ATTAACTA	1/6	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTC--ATAAGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCACCCA----------CCACCATTAACTA	1/6	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTC--ATAAGTGGCCAACTCTACTACTCG	ACCTGGCCAATTACCA----------CAGCCCTCTGCCACCATTAACTA	1/6	Out-of-frame
	TCACAGTGGCCCGGGGGTCATAAGTGGTAC----------AACTCTACTACTCG	ACCTGGCCAATTACC----------GACAGCCCTCTGCCACCATTAACTA	1/6	Out-of-frame

C



D



Supplementary Figure 1