

Supplementary Table 1

Target sequence for designing gRNA for knock-out of *cryaba* and *cryabb*

Gene	Primer	Targeted Sequence
<i>cryaba</i>	T01	GGCGCTTCCAAGCTGGT
	T02	GTAAAACATGGTGTAGAA
	T03	CTGATCAAAAATTCGATA
	T04	ACAAGGGTCGGCGATACC
<i>cryabb</i>	T01	GCCGGAACGGGGGATTGA
	T02	CTCCCCAAATTGCCGGCG
	T03	ATCGTTGGGAGTACAATG
	T04	TTCGCAGTCCAAGCTGGA

Supplementary Table 2

Primer sequence for initial screening KO in *cryaba* and *cryabb*

Gene		Primer Sequence
<i>cryaba</i>	Forward	AATGAGCCAGAGGGGAAGAG
	Reverse	TGTGAAAATGTCCTTGCATCA
<i>cryabb</i>	Forward	GGAAGGGGAGAACACAGTGG
	Reverse	ACGCGTGACTCCTCAACTTT

Supplementary Table 3

Primer sequence for PCR amplification to genotype alleles of *cryaba* and *cryabb* (5' → 3')

Gene	Allele		Primer Sequence
<i>cryaba</i>	$\alpha B1^{ins\ 5bp}$	Forward	AGCCCAGCATTTGAGACTCTATG
		Reverse	GTGTAGAAAGGTGAAAAAGGGTC
<i>cryaba</i>	$\alpha B1^{\Delta 35bp}$	Forward	ATAGATCAGTGGCTGACACGAGG
		Reverse	CATGCCACTGTCCCACCAGC
<i>cryabb</i>	$\alpha B2^{\Delta 10bp}$	Forward	GGAAGGGGAGAACACAGTGG
	$\alpha B2^{\Delta 8bp}$	Reverse	ACGCGTGACTCCTCAACTTT

Supplementary Table 4

Primer sequence for qPCR (5' → 3')

Gene		Primer Sequence
<i>cryaa</i>	Forward	AGGGCAAGCATGGAGAAAG
	Reverse	GCAGACAGTGTGCAGGTGAT
<i>cryaba</i>	Forward	GCATGTCCGAGATGAGACAG
	Reverse	CTGCCGTTTCATCATGTTTTTC
<i>cryabb</i>	Forward	TCTTCCTTTCTTCGCAGTCC
	Reverse	TGATAGCTCCTCTGGTGCAA
<i>pepck</i>	Forward	AACTCCAGGTTTTGTGCCCC
	Reverse	TACACCAAAGGCACACCTTCT
<i>pxr</i>	Forward	ATGAAGTGACGGGAATTTGGG
	Reverse	GATGGTGCTGAAAACCAGCTC
<i>fkbp5</i>	Forward	GTCGACTGTTTGATTTCGCGG
	Reverse	AGGCGTACTTGGGCTTTAGG
<i>β-actin</i>	Forward	CGAGCTGTCTTCCCATCCA
	Reverse	TCACCAACGTAGCTGTCTTTCTG