

**Table S1.** The oligonucleotide primers used in this study.

Primers	sequences
GAP-F	gacgcatgtcatgagattattgga
AOX-R	ggcaaatggcattctgacatcctc
ANGly $\alpha$ 2+U-F	tggctacggcaagcataactcctcttctcctttctattct
ANGly $\alpha$ 2+U-R	agaatagaaaggagaagaggagttagcttgccgtagcca
ANGly $\alpha$ 2+1-F	acagtgtatcaactggaactcctcccttctgaccaggaggacctacaatg
ANGly $\alpha$ 2+1-R	tctcctggtcagaaggaggaggtccagttgatacactgtgccccactt
QNGly $\alpha$ 2-1-F	aaccagatcaaaactccaagccttggtgc
QNGly $\alpha$ 2-1-R	gcaccaaggcttgagttttgatctgggtt
QNGly $\alpha$ 2-2-F	tttctgttcaaaaaaccgtcacaacaac
QNGly $\alpha$ 2-2-R	gttggttgacgggtttttgaaacagaaa
DSPA $\alpha$ 2-9KY-F	aaggaggagggtgttccctcgagaaaagagcttatggtgtgcctgcagagacgaaaa
DSPA $\alpha$ 2His-9KY-R	agtcatgtctaaggcgaaattcgcttagtggtgatggtgatggtgtgggcgcattgtgc