

**Supplemental Table S1**

GeneBank IDs of secretogranin-2 protein sequences used for comparative homology analysis.

Species name	Accession number
<i>Xenopus tropicalis</i>	NP_001072311.1
<i>Homo sapiens</i>	NP_003460.2
<i>Mus musculus</i> (isoform 1)	NP_033155.1
<i>Mus musculus</i> (isoform 2)	NP_001297609.1
<i>Varanus komodoensis</i>	XP_044288914.1
<i>Mauremys mutica</i>	XP_044885074.1
<i>Gallus gallus</i>	XP_040535214.1
<i>Danio rerio</i>	XP_009290228.1
<i>Oryzias melastigma</i>	XP_024133635.1
<i>Oryzias latipes</i>	XP_004075761.1
<i>Monopterus albus</i>	XP_020441343.1
<i>Echeneis naucrates</i>	XP_029374128.1
<i>Seriola dumerili</i>	XP_022616204.1
<i>Seriola lalandi dorsalis</i>	XP_023284183.1

**Supplemental Table S2**

GeneBank IDs of gonadotropin-releasing hormone protein sequences used in this study.

Species name	Accession number
<i>Oryzias latipes</i>	NP_001098169.1
<i>Monopterus albus</i>	AAW51121.1
<i>Echeneis naucrates</i>	XP_029365716.1
<i>Sebastes schlegelii</i>	AFS52222.1
<i>Seriola dumerili</i>	XP_022612160.1
<i>Seriola lalandi dorsalis</i>	XP_023249933.1
<i>Xenopus tropicalis</i>	XP_031753457.1
<i>Mus musculus</i>	NP_032171.1
<i>Homo sapiens</i>	NP_000816.4
<i>Mauremys mutica</i>	XP_044860640.1
<i>Gallus gallus</i>	NP_001074346.1