

Supplementary Table 1: Oligonucleotides used for PCR and real-time PCR amplifications performed in this study.

| Primer name | Sequence (5' to 3') | Purpose | Species ^a |
|--------------|---------------------------------|-----------------------|----------------------|
| NGP_GN1F | ACNAARTCNAARGAYGARGTNAAY | cDNA cloning | An, Sa, DI |
| AnGRP1F | TGTAGAGGAGGAGCGTGATGAGCAGCA | cDNA cloning/ qRT-PCR | An |
| AnGRP1R | CATGATGTCCTTTTTTGGCGATTGTGTTC | cDNA cloning/ qRT-PCR | An |
| DIGRP1R | GATACTCCCGCACCTGCTCATTCTTCTCC | cDNA cloning | DI |
| SaGRP1R | GGATAGAGACCATCGTAGTGATACTCCCGT | cDNA cloning | Sa |
| GNGAPDH1F | GARAAACCTGCCAARTATGATGA | cDNA cloning | An |
| GNHPRTI1F | GACTTTGTWGGATTYGARRTKCCWGACAA | cDNA cloning | An |
| AnGAPDH_RT1F | TCTGACTTCAATGGAGACACCCGCT | qRT-PCR | An |
| AnGAPDH_RT1R | CACGAGGTCCACGACTCTGTTGCTGTA | qRT-PCR | An |
| AnHPRTI_RT1F | TGAAGAGCCCTGACCACGCCGA | qRT-PCR | An |
| AnHPRTI_RT1R | CGTGCCACCAAGAAAACAGCAAATACAA | qRT-PCR | An |
| RnGRP_ORF1F | TGCCCTGTGGTTTCTGGGAAGTGC | cDNA cloning | Rn |
| GWAnGRP1F | AGCTCTGCAAAAATGAACTGGAATCAGATC | Gene cloning | An |
| GWAnGRP1R | TTAAAAAGGCGGTTGCTTCAGATTCCTG | Gene cloning | An |
| AnGRP_GBFI | ATTTGAAACTATTGGTTCAGTCTTTACAATC | Gene cloning | An |
| GRPIntIIIR | GCTTGTTTAATATCACTAATATGTTGGA | Gene cloning | An |
| GRPIntIIIF | CAGGACTAGTTTCCAGTCAAGTCTATAC | Gene cloning | An |
| AnGRP_B1R | CTAGCGTAAACTGCCTTGAACCTATTTTACA | Gene cloning | An |
| RnMGP_F | GAGACCATGAAGAGCCTGCTCCCTC | cDNA cloning | Rn |
| RnMGP_R | CTGCTCTTTCATTACTTTCAACCCGC | cDNA cloning | Rn |
| RnOC_F | GACAAGTCCCACACAGCAACTCGGT | cDNA cloning | Rn |
| RnOC_R | ACCGTTCCTCATCTGGACTTTATTTTG | cDNA cloning | Rn |

^a An, *Acipenser naccarii*; Sa, *Sparus aurata*; DI, *Dicentrarchus labrax*; Rn, *Rattus norvegicus*.

Supplementary Table 2: Amino acid analyses of sturgeon GRP. Ten and 30 μg of the G-75 purified GRP were subjected to acid and alkaline hydrolysis respectively in order to determine the amino acid composition of GRP and quantify the amount of Glu residues in the protein.

| Amino acid | Acid hydrolysis | | Alkaline hydrolysis | |
|--------------------------------|-----------------|-----------|---------------------|-----------|
| | Found | Predicted | Found | Predicted |
| γ -Carboxyglutamic acid | | | 16.7 | 16* |
| Aspartic acid | 10.3 | 10 | 8.6 | 10 |
| Threonine | 2.2 | 2 | | |
| Serine | 3.2 | 3 | | |
| Glutamic acid | 19.9 | 22** | 5.3 | 6 |
| Proline | 1.7 | 1 | | |
| Glycine | 2.5 | 1 | | |
| Alanine | 4.1 | 3 | | |
| Valine | 2.0 | 2 | | |
| Cysteine | 0 | 0 | | |
| Methionine | 0 | 0 | | |
| Isoleucine | 0.8 | 1 | | |
| Leucine | 2.4 | 2 | | |
| Tyrosine | 6.3 | 8 | | |
| Phenylalanine | 1.3 | 1 | | |
| Lysine | 3.1 | 3 | | |
| Histidine | 2.9 | 3 | | |
| Arginine | 10.3 | 11 | | |
| Tryptophan | N.D. | 1 | | |

* Prediction assumes γ -carboxylation of all 16 Glu residues in GRP.

**16 Glu + 6 Gln; N.D., not detected.