

Appendix 2-9

Chapter 2.

Exploiting genomic data to identify proteins involved in abalone reproduction.

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“Sequence alignment of human, oyster and snail SPAG6. The peptides in colours were detected in Protein pilot and mapped to SPAG6. The regions that contain the armadillo repeats in human SPAG6 [UniProtKB: O75602] are given. Additionally, in coloured boxes the location of each peptide along the paired sequences is shown”. Alignment was conducted at <http://www.ebi.ac.uk/Tools/msa/clustalo/>.

Peptides identified in male abalone gonad:

1. **YYSPGYSDALLER** contained in Human armadillo repeat region 459-509
2. **LANYNDDLAEAVVK** partially contained in Human armadillo repeats 1 and 2 (regions: 31-70 and 73-112, respectively)
3. **GDILPQLVYSLAEQNR** (peptide with highest intensity) Contained in Human armadillo repeat 2 (region 73-112) with an amino acid substitution (G1C).
4. **IAASALSDICK** Contained in Human armadillo repeat 4 (region 157-196) with an amino acid substitution (C10A)
5. **AVAVANVLPK** (found in Pacific oyster *Crassostrea gigas* SPAG6 as a tryptic peptide)

