7.1 Supplemental Material

Figure A1. Sequence homologies between 3’-end of OD24 and NARS2. Alignments reproduced from BLAST algorithm [104].
Figure A2. UCSC Genome Browser on Human Feb. 2009 (GRCh37/hg19) Assembly. ODZ4 gene; Position chr11:77,159,470–80,419,476. Figure represents the ODZ4 locus viewed on the UCSC Browser [110]. Vertical lines indicates the including-exons in the full-length transcript. Blue horizontal lines show the predicted structure of the ODZ4 gene whereas the different transcripts are depicted with black lines.
7.2 List of Thesis Figures and Tables

Figure 1.1 Organization of teneurin domains. 12
Figure 1.2. Ongoing model proposed for teneurin signaling. 23
Figure 1.3. Predicted ODZ4 Mature Transcript (13.6 Kb of RefSeq, GenBank Acc.n NM_00108816) 26
Figure 2.1. Teneurin-2 expression in human cancer cell lines 35
Figure 4.1. Relative alignment of the designed primers respect to the ODZ4 transcript 44
Figure 4.2. PCR-amplification efficiency and genomic specificity of the ODZ4 primers 45
Figure 5.1. Screening of the ODZ4 Transcript in Human Cancer Cell Lines 59
Figure 5.2. ODZ4-Exon expression in different human cancer-derived cell lines. 61
Figure 5.3. ODZ4 coding-end and Splice Variants at the 5’-terminus 63
Figure 5.4. 3’-UTR region of ODZ4 Transcript derived from ovarian and breast cancer cell lines 65
Figure 5.5. The ODZ4 mRNA Is a Continuous Expressed Transcript in Human Ovarian and Breast Cancer-Derived Cell Lines 69
Figure 5.6.1. RACEs Experiments 74
Figure 5.6.2. Schematized Representation of Obtained RACE Products In Ovarian Cancer-Derived cell lines 76
Figure 5.6.3. The ODZ4 Transcript Blotting Derived From Human Breast Cancer Cell 79
Figure 6.1. ODZ4 partial-full length transcript in human ovarian and breast cancer-derived cell lines. 83
Figure 6.2. Genomic insert-sequences found in the ODZ4 mRNA derived from ovarian cancer-derived cell line (SKOV3) 86

Table 1.1. Chromosomal Location and Nomenclature for Teneurins 9
Table 1.2. Summary of Teneurin Expressions in Vertebrates. 20
Table 1.3. ODZs Gene Family and Their Predicted Characteristics in Humans 25
Table 4.1 Biological characteristics of the studied cell lines 39
Table 4.2. List of primers designed for this study and their corresponding sequences 48
Table 4.3. Expected amplicon size based on ODZ4 RefSeq transcript 49
Table 4.4. Components for the ligation reaction 50