

LIST OF FIGURES

Figure 1.1 Structure of DWNN Gene	2
Figure 1.2: DWNN Domain Arrangement.....	3
Figure 1.3: Conserved Amino Acids within the DWNN Domain in Various Species.....	3
Figure 1.4: TNF signalling pathway	8
Figure 1.5: Role of mitochondria in apoptosis (Intrinsic Pathway).....	11
Figure 1.6: p53-Rb pathway.	15
Figure 1.7: Spatial relationship of various members of Bcl-2 family.....	16
Figure 1.8: Ubiquitin proteasome pathway	18
Figure 1.9: Arrangement of L1/L2 on the virus like particles	27
Figure 1.10: (A) Schematic representation of the genomic organization of Human papillomavirus (HPV).....	28
Figure 1.11: Model for the mechanism by which human papillomavirus (HPV) 16 E5 impairs death-inducing signal complex (DISC) formation (Kabsch and Alonso, 2002).	45
Figure 2.1: Amino Acid Sequence of DWNN (13 kDa) to which antibodies were raised against.	69
Figure 3.1: H&E of a normal epithelium.	88
Figure 3.2: H&E of Epidermoid cervical cancer.	88
Figure 3.3: H&E of verrucous carcinoma.....	89
Figure 3.4: H&E of Carcinoma in situ.....	89
Figure 3.5: Extracted RNA.	92
Figure 3.6: Reverse transcription.....	92
Figure 3.7: Polymerase chain reaction.....	93
Figure 3.8: Agarose gel electrophoresis of restriction digests.....	93
Figure 3.10: Probe concentration estimation.	94
Figure 3.11: Schematic representation of a DIG-labelling reaction.	95
Figure 3.12: In situ hybridization of 5' 1.1 kb probe in moderately-differentiated carcinoma.	98

Figure 3.13: In situ hybridization of 5' 1.1 kb probe in the stroma.....	99
Figure 3.14: In situ hybridization of 5' 1.1 kb probe in well-differentiated carcinoma. ..	99
Figure 3.15: In situ hybridization of 3' 1.1 kb probe in moderately-differentiated carcinoma.....	100
Figure 3.16: In situ hybridization of 3' 1.1 kb probe in the stroma.....	101
Figure 3.17: In situ hybridization of 3' 1.1 kb probe in well-differentiated carcinoma. .	101
Figure 3.18: In situ hybridization for 3' 6.1 kb probe in moderately differentiated carcinoma.....	102
Figure 3.19: In situ hybridization of 3' 6.1 kb probe in the stroma.....	103
Figure 3.20: In situ hybridization of 3' 6.1 kb probe in well-differentiated carcinoma. .	103
Figure 3.21: In situ hybridization for exon 16 probe in moderately-differentiated carcinoma.....	104
Figure 3.22: Fluorescent in situ hybridization of 5' 1.1 kb probe.	105
Figure 3.23: Fluorescent in situ hybridization of 3' 1.1 kb probe.	105
Figure 3.24: Fluorescent in situ hybridization of 3' 6.1 kb probe	106
Figure 3.25: Fluorescent In Situ Hybridization of Exon 16.....	106
Figure 3.26: Amino acid sequence of DWNN (13 kDa) to which antibodies were raised against.	108
Figure 3.27: Schematic representation of immunocytochemistry reaction.	109
Figure 3.28: Immunocytochemistry of DWNN-13 kDa in the moderately-differentiated squamous cell carcinoma.	116
Figure 3.29: Immunocytochemistry of 13 kDa DWNN in well-differentiated squamous cell carcinoma.....	117
Figure 3.30: Immunocytochemistry of DWNN-13 kDa on the epithelium.	117
Figure 3.31: Immunocytochemistry of DWNN-13 kDa on the endocervical glands.	118
Figure 3.32: Immunocytochemistry of DWNN-13 kDa on the fibroblasts and keratin pearls.	118
Figure 3.33: Immunocytochemistry of DWNN-13 kDa on tunnel cluster and mesonephric ducts.	119
Figure 3.34: DWNN image analysis.....	119

Figure 3.35: Immunocytochemistry of DWNN-200 kDa on moderately differentiated squamous cell carcinoma.	120
Figure 3.36: Immunocytochemistry of DWNN-200 kDa on well-differentiated squamous cell carcinoma.	121
Figure 3.37: Immunocytochemistry of Bcl-2 on endocervical glands.....	122
Figure 3.38: Immunocytochemistry of Bcl-2 on squamous cell carcinoma.	123
Figure 3.39: Apoptosis in normal and invaded stroma.	126
Figure 3.40: Apoptosis in endocervical glands and islands of tumour.	127
Figure 3.41: Schematic representation of ABC staining reaction.....	128
Figure 3.42: Ki67 expression on the epithelium, endocervical glands and islands of tumour.	131
Figure 3.43: Ki67 expression on the invaded stroma and squamous cell carcinoma.	132
Figure 3.44: Amplification curves of 5'1.1 kb, 3'6.1 kb and exon 16.....	134
Figure 3.45: Melting curve analysis of 5'1.1 kb, 3'6.1 kb and exon 16.	135