

Supplementary Table 1 – Prognostic signature descriptions

Description of each hypoxia prognostic signature used.

Signature	Citation	# of genes	Development Description
Buffa metagene	[9]	51	Omnibus searched for gene expression studies/data sets in cancer, 8 were selected, Winter et al. Was used as a training data set Tissue: frozen material extracted before chemotherapy, radiotherapy or adjuvant treatment Microarray: Affymetrix U133A, B and plus2 Normalization: GCRMA
Chi	[10]	145	Cell lines (4): Human coronary artery endothelial cells, smooth muscle cells, human mammalian epithelial cells, and renal proximal tubule epithelial cells Hypoxic conditions: 2% and 0.02% oxygen Microarray: human cDNA microarrays containing 42,000 elements representing 27,291 unique genes, scanned with Axon Scanner 4000 Normalization: normalized to the ambient air control harvested at the same time
Elvidge	[11]	178	Cell lines: MCF7 breast cancer and Hep3B hepatoblastoma Hypoxic conditions: 1% oxygen Microarray: HG-U133A GeneChips, HG-U133 plus 2 GeneChips Normalization: GCRMA
Hu	[12]	13	Tissue: breast tumor Microarray: Agilent Human oligonucleotide microarrays scanned on an Axon GenePix 4000B Normalization: Lowess
Seigneuric 0% early	[13]	68	Used Data from Chi et al. Cell lines (4): Human coronary artery endothelial cells, smooth muscle cells, human mammalian epithelial cells, and renal proximal tubule epithelial cells Hypoxic conditions: 0.02% oxygen Microarray: Affymetrix Human Genome U133A Array, Affymetrix Human Genome U133B Array Normalization:
Seigneuric 2% early	[13]	34	Used Data from Chi et al. Cell lines (4): Human coronary artery endothelial cells, smooth muscle cells, human mammalian

			epithelial cells, and renal proximal tubule epithelial cells Hypoxic conditions: 2% oxygen Microarray: Affymetrix Human Genome U133A Array, Affymetrix Human Genome U133B Array Normalization:
Sorensen	[14]	28	Cell line: human uterine cervix squamous cell carcinoma Hypoxic conditions: 5%, 1%, 0.1%, 0.01% and 0% oxygen, Microarray: Human Genome U133 Plus 2.0 Array Normalization: MAS 5.0
Winter metagene	[15]	101	Tissue: untreated head and neck squamous cell carcinomas from surgery Microarray: Affymetrix U133plus2 GeneChips Normalization: GCRMA
Cluster 1	[16]	69	Cell culture: Exponentially growing prostate (DU145), colon (HT29) and breast (MCF7) carcinoma cell Hypoxic conditions: 0.0% oxygen Microarray: Affymetrix HG-U133 Plus 2.0 GeneChips Normalization: RMA
Cluster 2	[16]	246	Cell culture: Exponentially growing prostate (DU145), colon (HT29) and breast (MCF7) carcinoma cell Hypoxic conditions: 0.0% oxygen Microarray: Affymetrix HG-U133 Plus 2.0 GeneChips Normalization: RMA
Cluster 3	[16]	157	Cell culture: Exponentially growing prostate (DU145), colon (HT29) and breast (MCF7) carcinoma cell Hypoxic conditions: 0.0% oxygen Microarray: Affymetrix HG-U133 Plus 2.0 GeneChips Normalization: RMA
Cluster 4	[16]	95	Cell culture: Exponentially growing prostate (DU145), colon (HT29) and breast (MCF7) carcinoma cell Hypoxic conditions: 0.0% oxygen Microarray: Affymetrix HG-U133 Plus 2.0 GeneChips Normalization: RMA
Cluster 5	[16]	162	Cell culture: Exponentially growing prostate (DU145), colon (HT29) and breast (MCF7) carcinoma cell

			<p>Hypoxic conditions: 0.0% oxygen  Microarray: Affymetrix HG-U133 Plus 2.0 GeneChips  Normalization: RMA</p>
Cluster 6	[16]	14	<p>Cell culture: Exponentially growing prostate (DU145), colon (HT29) and breast (MCF7) carcinoma cell  Hypoxic conditions: 0.0% oxygen  Microarray: Affymetrix HG-U133 Plus 2.0 GeneChips  Normalization: RMA</p>
Cluster 7	[16]	28	<p>Cell culture: Exponentially growing prostate (DU145), colon (HT29) and breast (MCF7) carcinoma cell  Hypoxic conditions: 0.0% oxygen  Microarray: Affymetrix HG-U133 Plus 2.0 GeneChips  Normalization: RMA</p>