

Supplementary Table S1. Extracted Data.

No.	First author	Study type	Method	Tumour type	Aquaporin type	Expression/function or both
[1]	Abdelrahman, A. E. 2018	Biopsy	Immunohistochemistry	Ovarian cancer	AQP5	Expression
[2]	Allory, Y. 2008	Biopsy	Immunohistochemistry	Renal cancer	AQP1	Expression
[3]	Angelico, G. 2018	Biopsy	Immunohistochemistry	Pleural Mesothelioma	AQP1	Expression
[4]	Angelico, G. 2018	Biopsy	Immunohistochemistry	Pleural Mesothelioma	AQP1	Expression
[5]	Aras, Y. 2016	In vitro	Immunohistochemistry	Brain cancer	AQP4	Expression
[6]	Arif, M. 2018	In vitro	Small interfering RNA	Breast cancer	AQP3	Expression and function
			RT PCR			
			Fluorescent cell swelling assay			
			Cellular proliferation assay			
			Cellular migration assays			
[7]	Bellezza, G. 2017	Biopsy	Immunohistochemistry	Lung cancer	AQP1,5	Expression
			RT PCR			
[8]	Ben, Y. 2008	In vitro	Immunohistochemistry	Lung cancer	AQP3,5	Expression
			RT PCR			
[9]	Bhattacharjee, H. 2004	In vitro	Up take assay	Leukemia	AQP9	Expression and function
			Immunohistochemistry			
[10]	Breyer, J. 2017	Biopsy	Immunohistochemistry	Urothelial cancer	AQP3	Expression
[11]	Cagini, L. 2017	Biopsy	RT PCR	Lung cancer	AQP1	Expression
			RT PCR		AQP5	
[12]	Cao, X. C. 2013	In vitro	Wound healing assay	Breast cancer	AQP3	Expression and function
			Western blot			
			Small interfering RNA			
[13]	Capoccia, 2015	In vitro	Western blot	Brain cancer	AQP4	Expression and function
			Wound healing assay			
			DNA fragmentation assay			
			Cell proliferation and survival assays			
[14]	Chae, Y. K. 2008	In vitro	Apoptotic cell staining	Leukemia	AQP5	Expression and function
			Small interfering RNA			
			RT PCR			

			Immunohistochemistry Immunoblotting Flow cytometry Cytogenetic response			
[15]	Chae, Y. K. 2008	Biopsy In vitro	Tissue microarrays Pull-down assays Invasion assay Immunoprecipitation Immunohistochemistry Fluorescence in situ hybridization	Lung cancer	AQP5	Expression and function
[16]	Chae, Y. S. 2015	Biopsy	Tissue array Immunohistochemistry	Breast cancer	AQP3	Expression
[17]	Chang, H. 2014	Biopsy	Western blot RT PCR Immunohistochemistry	Cervical cancer	AQP8	Expression
[18]	Chang, H. 2014	In vitro	Wound healing assay Western Blot Immunohistochemistry	Oesophageal cancer	AQP8	Expression and function
[19]	Chau, D. 2015	In vitro	Western blot Small interfering RNA RT PCR Methylation-specific PCR Cytotoxicity assay Apoptosis assay	Leukemia	AQP9	Expression and Function
[20]	Chen, C. 2017	In vitro	Wound healing assay Transwell migration Invasion assays Cytotoxicity assay	Colon cancer	AQP5	Expression and function
[21]	Chen, G. 2018	In vitro In vivo	Western blot Tumour growth in vivo RT PCR Invasion assays Immunohistochemistry Cell proliferation	Liver cancer	AQP3	Expression and function
[22]	Chen, J. 2004	In vitro	RT PCR	Lung cancer	AQP 1,3,4,5	Expression

[23]	Chen, J. 2014	Biopsy In vitro	Western blot Transwell migration Invasion assays Small interfering RNA RT PCR Immunohistochemistry Immunofluorescence assays Cell proliferation assays	Gastric cancer	AQP2	Expression and Function
[24]	Chen, J. 2015	In vitro	Wound healing assay Western blot Small interfering RNA RT PCR MMP-3 ELISA assay Invasion assays cDNA microarray	Prostate cancer	AQP2	Expression and function
[25]	Chen, L. 2017	Biopsy In vitro	Western blot Small interfering RNA RT PCR Immunohistochemistry Immunofluorescence assays Flow cytometry assay Cellular TAG level detection assay	Gastric cancer	AQP3	Expression and function
[26]	Chen, Q. 2016	In vitro	Wound healing assay Western blot Invasion assays Small interfering RNA RT PCR Immunohistochemistry Cell Proliferation Assay Cell apoptosis assay.	Prostate cancer	AQP8	Expression and function
[27]	Chen, Q 2018	In vitro	Wound healing assay Western blot Invasion assays Small interfering RNA RT PCR Cell cycle distribution assay Cell apoptosis assay	Prostate cancer	AQP3	Expression and function

[28]	Chen, R. 2012	Biopsy	RT PCR Immunohistochemistry	Cervical cancer	AQP 1,3,8	Expression
[29]	Chen, R. 2014	Biopsy	RT PCR Immunohistochemistry	Cervical cancer	AQP 1,3	Expression
[30]	Chen, X. 2014	In vitro	RT PCR MTT assay	Ovarian cancer	AQP1 to 10	Expression and function
[31]	Chen, X. 2015	In vitro	Western blot Cell proliferation assay Small interfering RNA RT-qPCR	Ovarian cancer	AQP5	Expression and function
[32]	Chen, X. F. 2016	Biopsy	Western blot qRT PCR Immunohistochemistry	Liver cancer	AQP 3,7,9	Expression
[33]	Chen, Y. 2017	In vitro	Western blot qRT PCR Invasion Cell viability assay Cell migration assay Cell cycle analysis	Brain cancer	AQP 4	Expression and function
[34]	Chen, Y. 2003	Biopsy	ISH of Tissue Microarrays	Cervical cancer	AQP5	Expression
[35]	Chen Y. 2006	In vitro	Western Blots RT PCR Immunohistochemistry CT scan MRI	Brain cancer	AQP1	Expression
[36]	Chen Z. 2011	Biopsy	Western Blot Water permeability assay qRT PCR Migration assay Invasion assay Colony forming test Cellular regulatory volume	Lung cancer	AQP5	Expression and function
[37]	Deb, P. 2012	In vitro	Immunohistochemistry	Brain cancer	AQP1	Expression
[38]	Ding, T. 2011	Biopsy In vivo	Western Blot Small interfering RNA Scratch assay Osmotic fragility	Brain cancer	AQP4	Expression and function

			Invasion assay F-actin measurement Cytotoxicity assay Chemotaxis and chemo kinesis assays Aggregation assay Adhesion assay			
[39]	Ding, T. 2013	Biopsy In vivo	Western Blot Tumorigenicity Assay Small interfering RNA Osmotic fragility MTT assay Immunohistochemistry Colonies formation assay Apoptosis assay	Brain cancer	AQP4	Expression and function
[40]	Dong, X. 2016	Biopsy	Western Blot Small interfering RNA Immunohistochemistry Cell proliferation assays	Gastric cancer	AQP3	Expression and function
[41]	Dorward, H. S. 2016	Biopsy In vitro	Wound healing assay Western Blot Immunohistochemistry qPCR Invasion assay Immunofluorescence Cell proliferation assay Angiogenesis assay	Colon cancer	AQP1	Expression and function
[42]	Dou, R. 2013	In vitro	MicroRNA data analysis Gene expression data analysis	Colon cancer	AQP9	Expression
[43]	Driml, J. 2013	Biopsy In vivo	VEGFA ELISA Small interfering RNA Matrigel VM Assay qRT PCR Mouse Xenograft MM Model	Malignant mesothelioma	AQP1	Expression and function
[44]	Driml, J. 2016	In vitro	Immunohistochemistry	Malignant mesothelioma	AQP1	Expression
[45]	Dua, R. K. 2010	In vitro	Immunohistochemistry	Brain cancer	AQP4	Expression
[46]	El Hindy, N. 2013	In vitro	Immunohistochemistry	Brain cancer	AQP1	Expression

[47]	El Hindy, N. 2013	In vitro	Secreted Alkaline Phosphatase (SEAP) Assay qRT PCR MGMT-Promoter Methylation Analysis	Brain cancer	AQP1	Expression
[48]	Endo, M. 1999	In vivo	Immunohistochemistry Immunofluorescence	Brain cancer	AQP1	Expression
[49]	Esghaei, M. 2018	Biopsy	MTT assay Immunofluorescence	Colon cancer	AQP5	Expression and function
[50]	Evans, J. 2017	Biopsy	Western blot MTT assay Small interfering RNA	Lung cancer	AQP11	Expression
[51]	Ewelt, C. 2012	In vitro	Immunofluorescence	Brain cancer	AQP1 AQP4	Expression
[52]	Fallier-Becker, P. 2013	Biopsy In vivo	Western blot RT-PCR Immunocytochemistry	Brain cancer	AQP4	Expression
[53]	Fossdal, G. 2012	Biopsy In vitro In vivo	Western blot qPCR Immunocytochemistry	Brain cancer	AQP9	Expression
[54]	Georges, J. 2011	In vivo In vitro	Western blot RT PCR	Brain cancer	AQP1	Expression
[55]	Guan, Y. 2018	In vitro	Western blot Small interfering RNA MTT Test qRT PCR Migration assay Invasion assay Apoptosis	Brain cancer	AQP1	Expression and function
[56]	Guo, K. 2015	Biopsy	Western blot Small interfering RNA MTT assay Migration assay	Lung cancer	AQP5	Expression and function
[57]	Guo, X. 2013	In vitro	Immunocytochemistry	Liver cancer	AQP3 AQP5	Expression
[58]	Hara-Chikuma, M. 2008	In vivo	Water and glycerol permeability assay	Skin cancer	AQP3	Expression and function

			RT PCR Cell proliferation assay Cell differentiation assay Cell apoptosis assay ATP production assay			
[59]	Hara-Chikuma, M. 2016	Biopsy	RT PCR Immunofluorescence Immunoblotting Cellular H2O2 analysis	Skin cancer Lung cancer	AQP3	Expression and function
[60]	Hayashi, 2007	In vitro	Western blot Lactate Dehydrogenase Assay Lactate Assay Immunohistochemistry Cathepsin B Enzyme Activity Assay	Brain cancer	AQP1	Expression and function
[61]	He, Z. 2017	Biopsy In vivo	Western blot Small interfering RNA qRT PCR Cell migration assay Cell invasion assay	Liver cancer	AQP5	Expression and function
[62]	Hindy, N. E. 2013	In vivo	Immunohistochemistry	Brain cancer	AQP1	Expression
[63]	Hoque, M. O. 2006	Biopsy In vitro	Western blot Immunohistochemistry Terminal dUTP Nick-End Labeling (TUNEL) Assay Focus Formation Assay RT PCR In vitro growth rate ERK Activity assay	Lung cancer	AQP1	Expression and function
[64]	Hu, H. 2005	In vivo	Immunohistochemistry	Brain cancer	AQP4	Expression
[65]	Huang, D. 2017	Biopsy In vitro In vivo	Western blot Cell growth curve assay qRT PCR Immunohistochemistry Flow cytometry	Colon cancer	AQP9	Expression and function
[66]	Huang, X. 2017	Biopsy	Western blot Small interfering RNA	Pancreatic cancer	AQP3	Expression and function

			Luciferase reporter assay Cell proliferation and apoptosis assay			
[67]	Huang, Y. 2009	In vivo	qRT PCR	Renal cancer	AQP1	Expression
[68]	Huang, Y. 2010	Biopsy	Western blot Small interfering RNA Migration assay Cell proliferation assay	Gastric cancer	AQP3	Expression and function
[69]	Huang, Y. H.2013	Biopsy In vivo	Western blot RT PCR MTT assay Migration assay Immunohistochemistry Colony formation assay	Gastric cancer	AQP5	Expression and function
[70]	Huang, Y. T. 2015	In vivo Biopsy	Western blot Small interfering RNA RT PCR Migration assay Luciferase reporter assay Invasion assay Immunohistochemistry Bioinformation and chromatin immunoprecipitation (ChIP) analyses	Breast cancer	AQP3	Expression and function
[71]	Hwang, I. 2012	In vivo	Western blot Immunofluorescence	Prostate cancer	AQP1,3,9	Expression
[72]	Imaizumi, H. 2018	In vivo	Immunohistochemistry	Colon cancer	AQP1	Expression
[73]	Imrédi, E. 2018	In vivo	Immunohistochemistry	Skin cancer	AQP1	Expression
[74]	Imrédi, E. 2016	In vivo	Immunohistochemistry	Skin cancer	AQP1	Expression
[75]	Iriyama, N. 2013	Biopsy In vivo	RT PCR Apoptosis assay	Leukemia	AQP9	Expression and function
[76]	Ishimoto, S. 2012	Biopsy In vivo	Immunohistochemistry Western blot Small interfering RNA Cell survival assay Adhesion	Tongue cancer	AQP3 AQP5	Expression and function
[77]	Ismail, M. 2009	Biopsy	Western blot	Prostate cancer	AQP3	Expression

			Small interfering RNA RT PCR Immunofluorescence Cryoinjury assay			
[78]	Isokpehi, R. D. 2015	Biopsy	Gene analysis	Brain cancer	All AQPs	Expression
[79]	Jagirdar, R. 2013	Gene database	BioGRID analysis	Pleural mesothelioma	AQP1	Expression
[80]	Jagirdar, R. M. 2016	Biopsy	Western blot Sphere formation assay RT PCR Cell migration assay Cell adhesion	Pleural mesothelioma	AQP1	Expression and function
[81]	Jelen, S. 2013	Biopsy In vivo	Immunofluorescence	Brain cancer	AQP9	Expression
[82]	Ji, C. 2008	Biopsy	Western Blot Small interfering RNA Phagokinetic track motility assay	Ovarian cancer	AQP3	Expression and function
[83]	Jia, B. 2018	Biopsy	Western blot Small interfering RNA RT PCR Invasion assay CCK-8 assay	Breast cancer	AQP5	Expression and function
[84]	Jiang, B. 2014	Biopsy In vitro In vivo	Western blot TUNEL assay Tumorigenicity qRT PCR Luciferase assay Immunohistochemistry Cell migration assay Cell invasion assay Cell apoptosis assay Caspase-3 activity assay Colony formation assay 5-ethynyl-2 -deoxyuridine (EdU) assay	Gastric cancer	AQP3	Expression and function
[85]	Jo, Y. M. 2016	Biopsy	Immunohistochemistry	Lung cancer	AQP5	Expression
[86]	Jung, H. J. 2011	Biopsy	RT PCR	Breast cancer	AQP5	Expression and

		In vivo	Small interfering RNA Immunohistochemistry BrdU cell proliferation assay Cell migration assay			function
[87]	Kang, B. W. 2015	In vivo	Immunohistochemistry	Colon cancer	AQP1, 3, 5	Expression
[88]	Kang, S. 2015	In vivo	Immunohistochemistry	Breast cancer	AQP3	Expression
[89]	Kang, S. K. 2008	Biopsy	Small interfering RNA Immunoblotting Cell proliferation assay	Colon cancer	AQP5	Expression and function
[90]	Kao, S. C. H. 2012	In vivo	Immunohistochemistry	Pleural Malignant Mesothelioma	AQP1	Expression
[91]	Kasimir-Bauer, S. 2009	In vivo	Immunohistochemistry	Breast cancer	AQP5	Expression
[92]	Katsurahara, K. 2018	Biopsy	Western blot Small interfering RNA Apoptosis assay RT PCR Migration assay Invasion assay Immunofluorescence Flow cytometer	Liver cancer	AQP5	Expression and function
[93]	Klebe, S. 2015	Biopsy In vivo	Small interfering RNA qRT PCR Migration assay Immunohistochemistry Cell proliferation assay Anchorage-Independent Assay	Mesothelioma	AQP1	Expression and function
[94]	Kon, T. 2017	In vivo	MRI Immunohistochemistry	Esophageal cancer	AQP4	Expression
[95]	Kong, B. 2016	Biopsy	Western blot Small interfering RNA RT PCR MTT assay	Colon cancer	AQP1	Expression and function
[96]	Kourghi, M. 2016	Biopsy	Two Electrode Voltage Clamp Recordings Osmotic Swelling Assays Cytotoxicity Cell migration assay	Colon cancer	AQP1	Function

[97]	Lee, S. J. 2014	Biopsy	Immunohistochemistry	Breast cancer	AQP5	Expression
[98]	Lee, S. J. 2017	Biopsy	Haplotype Identification and Reconstruction	Breast cancer	AQP5	Expression
[99]	Lehnerdt, G. F. 2015	Biopsy	Immunohistochemistry	Pharyngeal squamous cell carcinoma	AQP1 AQP5	Expression
[100]	Leung, J. 2007	In vivo	Western blot qPCR Arsenic cytotoxicity	Leukemia	AQP9	Expression
[101]	Li, A. 2013	Biopsy In vivo	Migration assay Western blot Immunohistochemistry	Colon cancer	AQP3	Expression and function
[102]	Li, B. 2012	Biopsy	Immunohistochemistry	Lung cancer	AQP3	Expression
[103]	Li, C. F. 2016	Biopsy In vitro In vivo	Western Blot RT PCR Immunohistochemistry Colony formation assay Cell cycle analysis Apoptosis assay	Liver cancer	AQP9	Expression and function
[104]	Li, J. 2014	Biopsy In vivo	Small interfering RNA RT PCR Immunohistochemistry Immunofluorescence assay FISH staining Cell viability Cell invasion assay	Prostate cancer	AQP5	Expression and function
[105]	Li, Q. 2018	In vivo	Western blot Tumor xenograft study Small interfering RNA RT PCR MTT assay Flow cytometry	Colon cancer	AQP5	Expression and function
[106]	Li, X. 2018	In vivo	Western blot Small interfering RNA RT PCR MTT assay Flow cytometry	Breast cancer	AQP5	Expression and function

			Cell migration Cell invasion			
			Western blot			
[107]	Li, X. J. 2007	In vivo	Immunohistochemistry Carbonic anhydrase activity assay	Lung cancer	AQP1	Expression and function
			Western blot			
[108]	Li, Y. B. 2016	In vitro	Small interfering RNA RT PCR Migration assay Invasion assay Cell proliferation assay	Breast cancer	AQP4	Expression and function
			Western blot			
			RT PCR			
			Mouse xenograft model			
			Lipid droplet staining			
[109]	Li, Z. 2016	Biopsy In vitro In vivo	Immunohistochemistry G3P assay Colony formation assay Cellular TAG measurement Cellular glycerol detection Cell proliferation assay ATP assay	Gastric cancer	AQP3	Expression and function
			Small interfering RNA			
			Western blot			
			RT PCR			
			MTT assay			
[110]	Liao, Z. Q. 2016	Biopsy In vitro	Matrigel invasion assay Dual-Luciferase reporter gene assay ChIP assay Cell migration assays	Brain cancer	AQP1	Expression and function
[111]	Lim, B. C. 2014	Biopsy	Immunosorbent assay	Brain cancer	AQP4	Expression
[112]	Liu, J. 2015	Biopsy	Immunohistochemistry	Uroepithelium cancer	AQP1	Expression
[113]	Liu, S. 2013	Biopsy	Immunohistochemistry	Esophageal cancer	AQP3,5	Expression
			Western blot			
[114]	Liu, Y. H. 2015	In vitro	RT PCR MTT assay	Lung Cancer	AQP1	Expression and function

			Invasion assay Flow cytometry			
[115]	Liu, Y. L. 2007	Biopsy In vitro	Western blot RT PCR Immunohistochemistry	Lung cancer	AQP3	Expression
[116]	Longatti, P. 2006	Biopsy	Immunohistochemistry	Brain cancer	AQP1	Expression
[117]	Longatti, P. 2006	Biopsy	Immunohistochemistry	Brain cancer	AQP1	Expression
[118]	Lopez-Campos, J. L. 2011	Biopsy	Immunohistochemistry	Lung cancer	AQP1	Expression
[119]	Luo, L. 2018	Biopsy In vitro	qTT-PCR Migration assays Luciferase assays Invasion assays Immunohistochemistry Cell proliferation assays	Breast cancer	AQP1	Expression and function
[120]	Luo, L. M. 2017	Biopsy	Immunohistochemistry	Liver cancer	AQP1	Expression
[121]	Lv, Y. 2018	In vitro	Western blot qRT PCR Invasion assay Cell migration assay	Brain cancer	AQP9	Expression and function
[122]	Ma, B. 2004	In vivo	Western blot Metastases assays Immunohistochemistry Carbonic anhydrase activity assay	Lung cancer	AQP1	Expression Function
[123]	Ma, J. 2016	Biopsy	Western Blot Immunohistochemistry	Ovarian cancer	AQP6,8	Expression
[124]	Matsuo, K. 2014	Biopsy	Immunohistochemistry	Oral cancer	AQP3	Expression
[125]	Mazal, P. R. 2005	Biopsy	Immunohistochemistry	Liver cancer	AQP1	Expression
[126]	McCoy, E. S. 2010	In vitro In vivo	Western blot Site directed mutagenesis Migration assay Immunocytochemistry Cell volume measurement Cell adhesion assay	Brain cancer	AQP1,4	Expression and function
[127]	Miao, Z. F. 2009	In vitro	MTT cytotoxicity assay Measurement of intracellular glutathione concentration	Lung cancer	AQP9	Expression and function

			Mass spectrometry Immunoblotting Graphite furnace atomic absorption spectrometry Cell proliferation assay			
[128]	Ming, L. 2008	Biopsy	Immunohistochemistry	Cervical cancer	AQP1	Expression
[129]	Mobasheri, A. 2005	Biopsy	Immunohistochemistry	Prostate Cancer Breast Cancer Ovary Cancer Colon cancer Lung cancer	AQP1	Expression
[130]	Mobley, J. 2013	Biopsy	Western blot	Renal cancer	AQP1	Expression
[131]	Mobley, J. 2013	Biopsy	Western blot	Renal cancer	AQP1	Expression
[132]	Morrissey, J. J. 2013	Biopsy	Western blot	Renal cancer	AQP1	Expression
[133]	Morrissey, J. J. 2015	Biopsy	Western blot	Renal cancer	AQP1	Expression
[134]	Morrissey, J. J. 2014	Biopsy	Western blot	Renal cancer	AQP1	Expression
[135]	Mou, K. 2010	Biopsy	Western blot Immunofluorescence Cranial MRI	Brain cancer	AQP4	Expression
[136]	Nakakoshi, M. 2006	In vitro In vivo	RT PCR Northern blot Immunoblotting	Skin cancer	AQP3	Expression
[137]	Nicchia, G. P. 2013	In vitro	Western blot Small interfering RNA Proliferation assay Immunofluorescence	Skin cancer	AQP1	Expression
[138]	Niu, D. 2012	Biopsy In vitro	Western blot RT PCR Immunohistofluorescence Immunohistochemistry	Thyroid cancer	AQP3,4	Expression
[139]	Noell, S. 2015	Biopsy	RT PCR Electron microscopy Immunohistochemistry	Brain cancer	AQP1,4	Expression
[140]	Noell, S. 2012	Biopsy In vitro In vivo	Western blot RT PCR Immunohistochemistry Freeze Fracture	Brain cancer	AQP4	Expression

[141]	Noell, S. 2012	Biopsy	Immunohistochemistry Electron microscopy Immunogold labeling Immunoblotting Electrophoresis	Brain cancer	AQP4	Expression
[142]	Oshio, K. 2005	Biopsy	Western blot RT PCR Immunohistochemistry Gene Array	Brain cancer	AQP1	Expression
[143]	Otterbach, F. 2010	Biopsy	Immunohistochemistry	Breast cancer	AQP1	Expression
[144]	Padma, S. 2009	Biopsy	Immunohistochemistry Immunofluorescent	Liver cancer	AQP9	Expression
[145]	Pan, H. 2008	Biopsy	Immunohistochemistry	Skin cancer	AQP1	Expression
[146]	Pan, X. Y. 2012	In vitro	Western blot Small interfering RNA Migration assay Invasion assay Dual-luciferase reporter assay Cell proliferation assay	Prostate cancer	AQP1	Expression and function
[147]	Park, J. Y. 2017	Biopsy	Immunohistochemistry	Prostate cancer	AQP1	Expression
[148]	Pei, J. V. 2016	In vitro	Quantitative Oocyte Swelling Assays qRT PCR Western blot Immunocytochemistry Molecular Docking Migration assay Live cell imaging Electrophysiology Cytotoxicity assay	Colon cancer	AQP1	Expression and function
[149]	Peng, R. 2016	In vitro	Western blot RT PCR Immunofluorescence Immunocytochemistry Cell proliferation assay	Liver cancer	AQP3,9	Expression and function
[150]	Peng, R. 2016	Biopsy In vivo	Xenograft tumor model Western blot	Liver cancer	AQP3,9	Expression

			RT PCR ELISA Terminal deoxynucleotidyl transferase-mediated dUTP nick end labeling assay			
[151]	Prata, C. 2018	In vitro	Western blot RT PCR Measurement of Intracellular ROS Level Immunofluorescence Electrophoresis Cell Viability	Leukemia	AQP8	Expression and function
[152]	Pulford, E. 2017	In vitro	Xenograft MM Model VEGFA ELISA Small interfering RNA qRT PCR Matrigel VM assay	Skin cance	AQP1	Expression and function
[153]	Qin, F. 2016	Biopsy	Western blot Proliferation assay Immunofluorescence Immunocytochemistry Colony formation Matrigel invasion	Breast cancer	AQP1	Expression and function
[154]	Qiu, J. 2018	Biopsy In vitro	Western blot RT PCR Luciferase reporter assay Invasion Assay Cell proliferation	Bone cancer	AQP3	Expression and function
[155]	Rentsch, C. A. 2009	Biopsy	qRT PCR	Renal cancer	AQP1	Expression
[156]	Rouzai-Dubois, B. 2009	In vitro	RT PCR Small interfering RNA Sodium imaging	Brain cancer	AQP1	Expression and function
[157]	Rubenwolf, P. 2015	Biopsy	Immunohistochemistry	Bladder cancer	AQP3	Expression
[158]	Rubenwolf, P. C. 2014	Biopsy In vitro	RT PCR Immunohistochemistry Immunofluorescence	Urothelial cancer	AQP3	Expression
[159]	Saadoun, S. 2002	Biopsy	Immunohistochemistry	Brain cancer	AQP1	Expression

[160]	Saadoun, S. 2003	Biopsy	Immunohistochemistry	Brain cancer	AQP4	Expression
[161]	Saito, Y. 2013	In vitro In vivo	Western blot	Ovarian cancer	AQP3,9	Expression and function
			Glycerol Uptake assay	Brain cancer		
			Immunohistochemistry	Breast cancer		
[162]	Sato, K. 2018	Biopsy	Immunohistochemistry	Ovarian cancer	AQP1,3,5,9	Expression
[163]	Satooka, H. 2016	In vitro	Time-lapse imaging of chemotaxis and H2O2 uptake.	Breast cancer	AQP3	Expression and function
			Spontaneous metastasis			
			RT PCR			
			PTP1B oxidation			
			PTEN oxidation			
			Osmotic water permeability assay			
			Migration assay			
			Immunofluorescence			
[164]	Sawada, T. 2007	Biopsy	Immunohistochemistry	Brain cancer	AQP4	Expression
[165]	Schob, S.2017	Biopsy	Immunohistochemistry	Brain cancer	AQP4	Expression
[166]	Sekine, S. 2014	Biopsy	Immunohistochemistry	Biliary tract cancer	AQP1	Expression
[167]	Sekine, S. 2012	Biopsy	Immunohistochemistry	Biliary tract cancer	AQP5	Expression
[168]	Sekine, S. 2014	In vitro	Small interfering RNA	Gallbladder cancer	AQP5	Expression and function
			RT PCR			
			Migration assay			
			Invasion assay			
			Immunohistochemistry			
[169]	Seleit, I. 2015	Biopsy	Immunohistochemistry	Skin cancer	AQP3	Expression
[170]	Shan, T. 2014	Biopsy	Western blot	Colon cancer	AQP5	Expression
			RT PCR			
			Immunohistochemistry			
			Immunofluorescence			
[171]	Shan, T. 2014	Biopsy	FISH staining	Colon cancer	AQP5	Expression
[172]	Shen, Q. 2016	Biopsy	Immunohistochemistry	Cervical cancer	AQP1,3,4,5,8	Expression
[173]	Shi, X. 2013	In vitro	Western Blot	Colon cancer	AQP5	Expression and function
			Small interfering RNA			

			RT PCR Proliferation assay Flow cytometry			
			Western blot			
[174]	Shi, X. 2014	Biopsy In vitro	Sulforhodamine B staining Small interfering RNA qRT PCR Immunohistochemistry	Colon cancer	AQP5	Expression and function
			Western Blot			
[175]	Shi, X. M. 2015	In vitro	Small interfering RNA MTT assay Flow cytometry	Colon cancer	AQP5	Expression and function
			RT PCR			
[176]	Shi, Y. H. 2012	Biopsy	Immunohistochemistry Immunofluorescence	Cervical cancer	AQP1,3,8	Expression
			Xenografts model			
[177]	Shi, Y. H. 2013	In vitro	Migration assay Invasion assay Cell proliferation Adherence assay	Cervical cancer	AQP8	Function
			Western blot			
[178]	Shi, Y. H. 2014	In vitro	Migration assay Immunofluorescence	Cervical cancer	AQP8	Expression and function
			Western Blot			
[179]	Shi, Z. 2012	Biopsy	RT PCR Immunohistochemistry	Breast cancer	AQP0-12	Expression
			Western Blot			
[180]	Shimasaki, M. 2011	Biopsy	qRT PCR Immunostaining	Lung cancer	AQP1,3,5	Expression
			Western blot			
[181]	Shimizu, H. 2014	In vitro Biopsy	Small interfering RNA RT PCR cell proliferation assay Cell cycle analysis Apoptosis assay	Esophageal cancer	AQP5	Expression and function
			Xenograft model			
[182]	Simone, L. 2018	In vitro In vivo	Western blot	Skin cancer	AQP1	Expression and function

			Small interfering RNA Immunofluorescence			
			Western blot qRT PCR			
[183]	Smith, E. 2018	In vitro	Cell growth assay Cell cycle analysis Apoptosis Acridine Orange Staining	Colon cancer	AQP1	Expression and function
[184]	Smith, E. 2019	Biopsy In vitro	qRT PCR 5-aza-2'-deoxycytidine assay	Colon cancer	AQP1	Expression and function
[185]	Song, T. 2015	Biopsy	Immunohistochemistry	Lung cancer	AQP5	Expression
[186]	Sreedharan, S. 2014	Biopsy	Western blot	Renal cancer	AQP1	Expression
[187]	Sung, K. K. 2008	In vitro	Small interfering RNA Immunohistochemistry Immunoblotting Cell proliferation assay	Colon cancer	AQP5	Expression and function
[188]	Thapa, S. 2018	Biopsy	Immunohistochemistry	Gastric cancer	AQP1-11	Expression
[189]	Ticozzi-Valerio, D. 2007	Biopsy	Immunoblotting Electrophoresis	Renal cancer	AQP1	Expression
[190]	Vacca, A. 2001	Biopsy	Western blot Immunoblotting Bone marrow angiogenesis staining	Skin cancer	AQP1	Expression
[191]	Wang, D. 2011	Biopsy	Western blot RT PCR Immunohistochemistry	Brain cancer	AQP1,4	Expression
[192]	Warth, A. 2011	Biopsy	Western blot qRT PCR Immunohistochemistry	Lung cancer	AQP4	Expression
[193]	Warth A. 2007	Biopsy	Immunohistochemistry	Brain cancer	AQP4	Expression
[194]	Wu, D. Q. 2018	Biopsy In vitro	Xenograft model Western blot qPCR Migration assay Invasion assay Immunofluorescence Colony formation assay	Colon cancer	AQP8	Expression and function

			Cell proliferation			
			Western blot			
			RT PCR			
[195]	Xia, H. 2013	In vitro	MTT	Lung cancer	AQP1	Expression and function
			Invasion assay			
			Flow cytometry			
			Western blot			
			Small interfering RNA			
			qRT PCR			
			Migration assay			
[196]	Xiong, W. 2018	Biopsy In vivo	Invasion assay	Brain cancer	AQP4	Expression and function
			Immunohistochemistry			
			Immunofluorescence			
			H&E staining			
			Dual-luciferase reporter assay			
			PCR			
[197]	Xuejun, C. 2014	In vitro	MTT assay	Ovarian cancer	AQP1-10	Expression and function
			qRT PCR			
[198]	Yang, C. 2016	Biopsy	Immunohistochemistry	Ovarian cancer	AQP3	Expression
			Western blot			
			RT PCR			
[199]	Yang, J. 2012	In vitro	Growth rate assay	Ovarian cancer	AQP5	Expression and function
			Western blot			
			qRT PCR			
			MTT assay			
[200]	Yang, J. 2017	Biopsy In vitro	Migration assay	Brain cancer	AQP5	Expression and function
			Immunohistochemistry			
			Flow cytometry			
[201]	Yang, J. H. 2006	Biopsy	Immunohistochemistry	Ovarian cancer	AQP1	Expression
			Immunohistochemistry			
[202]	Yang, J. H. 2006	Biopsy	Western blot	Ovarian cancer	AQP5	Expression
			RT PCR			
			Western blot			
[203]	Yang, J. H. 2011	EX-vivo	Immunohistochemistry	Ovarian cancer	AQP3,7,9	Expression
			Immunohistochemistry			
[204]	Yang, J. H. 2011	Biopsy	Immunohistochemistry	Ovarian cancer	AQP1-9	Expression
			Xenograft glioma model			
[205]	Yang, L. 2012	In vitro In vivo	VEGF activity assay	Brain cancer	AQP4	Expression and function

			Tumor vessel permeability assay The water contents of tumor tissue assays qPCR Immunohistochemistry ELISA			
[206]	Yang, W. C. 2015	Biopsy	Western blot Immunohistochemistry	Brain cancer	AQP4,9	Expression
[207]	Yang, Z. H. 2015	In vitro In vivo	Xenograft model Western blot Immunostaining Flow cytometry Cell proliferation assay Cell apoptosis	Colon cancer	AQP9	Expression and function
[208]	Yin, T. 2008	Biopsy	Immunohistochemistry	Breast cancer	AQP1	Expression
[209]	Yong, J. 2009 [209][174][89][121][81][121][81][53][53][53][53][210][210][211][211]	In vitro In vivo	Xenograft model Water Permeability Measurements RT PCR Migration assay Measurement of RhoA and Rac Activities Invasion assay Immunofluorescence Immunoblotting	Colon cancer	AQP1	Expression and function
[212]	Yoshida, T. 2013	Biopsy	Immunostaining H&E staining	Colon cancer	AQP1	Expression
[213]	Yun, S. 2016	Biopsy	Immunohistochemistry	Lung cancer	AQP1	Expression
[214]	Zhang, L. 2018	In vitro In vivo	Xenograft model Western blot TUNEL assay qRT PCR MTT assay Flow cytometry Colony formation assay.	Lung cancer	AQP5	Expression and function
[215]	Zhang, L. 2018	Biopsy	Pet/CT scan Immunohistochemistry	Cervical cancer	AQP1	Expression

[216]	Zhang, T. 2013	Biopsy	Western blot qRT PCR Migration assay Luciferase assays Invasion assay Immunohistochemistry Cell proliferation assay	Breast cancer	AQP1	Expression and function
[217]	Zhang, T. 2012	Biopsy	Western Blot qRT PCR Immunohistochemistry	Cervical cancer	AQP5	Expression
[218]	Zhang, W. G. 2016	Biopsy In vitro In vivo	Western Blot Small interfering RNA qRT PCR Invasion assay Immunohistochemistry Cell migration assay	Liver cancer	AQP9	Expression and function
[219]	Zhang, X. 2018	In vitro	Western Blot qRT PCR MTT assay Flow cytometry	Bladder Cancer	AQP1	Expression and function
[220]	Zhang, Z. 2010	In vitro In vivo	Xenograft model Western blot Small interfering RNA RT PCR Osmotic water permeability measurement Migration assay Invasion assay Immunohistochemistry Immunofluorescence	Lung Cancer	AQP5	Expression and function
[221]	Zhang, Z. 2019	Biopsy In vivo	Western blot qRT PCR Luciferase reporter assay Flow cytometry assay Detection of HBsAg and HBeAg Cell viability assay Cell proliferation assay	Liver cancer	AQP5	Expression and function

Caspase-3 activity assay						
Apoptosis						
[222]	Zhang, Z. Q. 2011	In vitro In vivo	Xenograft model	Lung cancer	AQP5	Expression and function
			Western Blot			
			RT PCR			
			Immunohistochemistry Immunofluorescence			
[223]	Zhao, W. J. 2012	Biopsy In vitro	Immunohistochemistry	Brain cancer	AQP4	Expression
			Immunofluorescence			
[224]	Zhu, S. J. 2013	Biopsy	Immunohistochemistry	Brain cancer	AQP8	Expression
			Immunoblotting			
			RT PCR			
[225]	Zou, L. B. 2011	Biopsy In vitro	Western blot	Endometrial cancer	AQP2	Expression and function
			siRNA			
			qRT PCR			
			Migration assay			
			Luciferase reporter assay			
			Invasion assay			
			Immunohistochemistry			
			Immunofluorescence			
			Electron microscopic			
			Cell proliferation			
[226]	Zou, W. 2019	Biopsy	Adhesion assay	Pancreatic cancer	AQP1,3	Expression
			Western blot			
			Immunohistochemistry			

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