

SUPPLEMENTARY MATERIAL

Supplemental Table 1S Primers used in this work

Oligonucleotide name	Sequence	Size of RT-PCR product(s)
RT-PCR analysis of human ASPM transcripts		
<i>Exon2-exon3</i>		
FN2-3/RN2-3	5'- ctgttaactggacaccactc -3'/5'- thtagtgggctcctaactct -3'	258 bp
<i>Exon14-exon15</i>		
FN14-15/RN14-15	5'-agacggccgtgtgttatgtt-3'/5'-agcaggtattccaccaaggt -5'	280 bp
<i>Exon1-exon28</i>		
ASPM1F/ASPM28R	5'-tcctgtctctcagccacttc-3'/5'-atgccaaagcgatccatcac-3'	10,315 bp or 5,560 bp*
F2-3/33-18R1	5'-ctgttaactggacaccactc-3'/5'-ctgcattttgtacctgaagga-3'	6,624 bp or 582 bp
F2-3/33-18R2	5'-ctgttaactggacaccactc-3'/5'-gtgcatctctcgcacacctt-3'	6,686 bp or 644 bp
Ex18R/Ex18F	5'-ataagcacgccaatgcctct-3'/5'-ccttcagatggctgtgtatc-3'	4,355 bp
Ex18R/AS17F	5'-ataagcacgccaatgcctct-3'/5'-gagttaatgcagcactcgtc-3'	277 bp
Ex18F/AS19R	5'-ccttcagatggctgtgtatc-3'/5'-gcaggaagtatagctctcca-3'	412 bp
RT-PCR analysis of mouse Aspm transcripts		
ASm1F/ ASm28R	5'-tgctgttgctcagccactt-3'/5'-cttcacattatcacgcctc-3'	9,217 bp or 5,574 bp
ASm17F/ ASm19R	5'-aaggaagttgcggatgctga-3'/5'-acagaaagtgtagctctccatt-3'	4,095 bp or 300 bp

* The second product corresponds to an alternatively spliced variant.

Supplemental Table 2S *ASPM* cDNA clones and deposited accessions

Identification	Species	Accessions*
Human splice variant 1	Homo sapiens	AY971956
Human splice variant 2	Homo sapiens	AY971957
Human splice variant 3	Homo sapiens	AY971955
Mouse splice variant 1	Mus musculus	AY971958

*GenBank accessions correspond to alternatively spliced variants identified in fetal brain and adult tissues.

Supplemental Table 3S Expression of the *ASPM* gene in NIH-60 cancer cell lines

Sample number	Type number	Cancer type	Cell line	Expression
1	1	Leukemia	K562	+
2	1	Leukemia	MOLT4	+
3	1	Leukemia	CCTF CEM	+
4	1	Leukemia	RPMI 8226	+
5	1	Leukemia	HL-60 TB	+
6	1	Leukemia	SR	+
7	2	CNS	SF 268	+
8	2	CNS	SF 295	+
9	2	CNS	SF 539	+
10	2	CNS	SNB 19	+
11	2	CNS	SNB 75	+
12	2	CNS	U251	+
13	3	Breast	BT549	+
14	3	Breast	HS 578	+
15	3	Breast	MCF 7	+
16	3	Breast	NCI ADRRES	+
18	3	Breast	MDA MB 435	+
19	3	Breast	T-47 D	+
20	4	Colon	Colo 205	+
21	4	Colon	HCC 2998	+
22	4	Colon	HCT 116	+
23	4	Colon	HCT 15	+
24	4	Colon	HT29	+
25	4	Colon	KM12	+
26	4	Colon	SW 620	+
27	5	NSCLC	A549 ATCC	+
28	5	NSCLC	EKVX	+
29	5	NSCLC	HOP 62	+
30	5	NSCLC	HOP 92	+
31	5	NSCLC	NCI H 322 M	+
32	5	NSCLC	NCI H226	+
33	5	NSCLC	NCI H23	+
34	5	NSCLC	NCI H460	+
35	5	NSCLC	NCI H522	+
36	6	Melanoma	LOX IMVI	+
37	6	Melanoma	M14	+
38	6	Melanoma	MAL ME	+
54	6	Melanoma	SK MEL 2	+
55	6	Melanoma	SK MEL 5	+
56	6	Melanoma	SK MEL 28	+
57	6	Melanoma	UACC 62	+
58	6	Melanoma	UACC 257	+
39	7	Ovarian	IGROV 1	+
40	7	Ovarian	OVCAR3	+
41	7	Ovarian	OVCAR4	+
42	7	Ovarian	OVCAR5	+
43	7	Ovarian	OVCAR8	+
44	7	Ovarian	SKOV3	+
45	8	Prostate	DU 145	+
46	8	Prostate	PC-3	+
47	9	Renal	786-0	+
48	9	Renal	A498	+
49	9	Renal	ACHN	+
50	9	Renal	CAKI-1	+
51	9	Renal	SN12C	+
52	9	Renal	TK-10	+
53	9	Renal	UO-31	+

ASPM expression was checked by RT-PCR using primers FN2-3 and RN2-3 developed from exon 2 and exon 3 sequences (see Supplementary Material Table 1S).

Supplemental Figure 1S

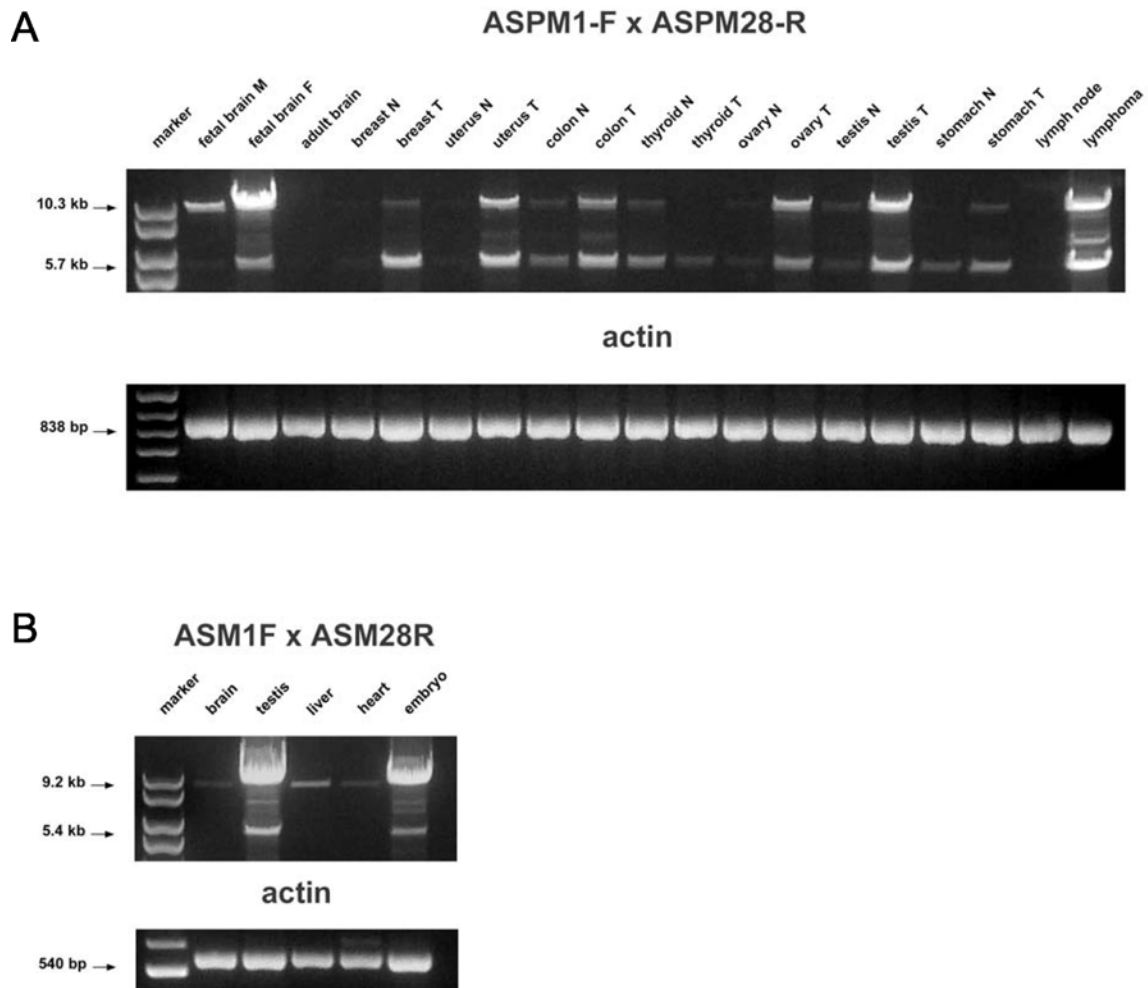


Figure 1S (A) RT-PCR expression of *ASPM* in human normal and matching tumor tissues. **(B)** RT-PCR expression of *Aspm* in mouse normal tissues.

Supplemental Figure 2S

IQ1:1241-1266	IQTTWRKYKLKRD LKH QERDKAARV	26
IQ2:1267-1289	IQSVVLN FLSRRRLQKNV SAAALV	23
IQ3:1290-1321	IQK CWRRVSAQRKLMLKNEKLAKLQNK SAVL	32
IQ4:1322-1344	IQAYWRRYSTRK FLRLKH YSVI	23
IQ5:1345-1367	LQSRIRMKIALTSYKRYLWATVT	23
IQ6:1368-1394	IQRHWRAYLSRKR DQIFRKLKSS SLV	27
IQ7:1395-1416	IQFMFRWKRRLQLQTKAAVT	22
IQ8:1417-1437	LQRAFREWHLRKQIRERSAVV	21
IQ9:1438-1460	IQSWYRMHRELQKYIYIRSCVIV	23
IQ10:1461-1483	IQRRVRCFQAQKLYKRRKDAILT	23
IQ11:1484-1510	LQKH YRARQK GKLAHADY LQKRAATIR	27
IQ12:1511-1533	LQAAFRGMKARHSYRLQIGAACV	23
IQ13:1534-1556	LQSYWRMRQ ERVFLNLK KMVIK	23
IQ14:1557-1579	LQAHIRKYQQLQKYKIKKAAIT	23
IQ15:1580-1606	IQTHFRASISARV LASYQKTRSS VIV	27
IQ16:1607-1629	LQSACRGMQARKA FRHALAS VIK	23
IQ17:1630-1652	IQSYRAYICRKTFQ NFKNATIK	23
IQ18:1653-1675	LQSIVKMKQSRKQYLQIRAAALF	23
IQ19:1676-1702	IQRWYRSQKLASQ KRKEYIQVRES CIK	27
IQ20:1703-1725	LQSHFRGCLVRKQLRLQCKAAIS	23
IQ21:1726-1748	LQSYFRMRTARQRYLK MCKAALV	23
IQ22:1749-1775	IQSFYCAYRAQISOR NFLQVKRAAIC	27
IQ23:1776-1798	LQAA YRGCKVRRQIKQOSTAAVT	23
IQ24:1799-1821	IQRVFRGHSQRMKYQ TMLQSAVK	23
IQ25:1822-1848	IQRWYRAQKVAYDMRIQ FLKTREAVVC	27
IQ26:1849-1871	LQSA YRGWQVRQQLRRQHEAAVK	23
IQ27:1872-1894	IQSTFRMAVAQ QYKLRLRAAAV	23
IQ28:1895-1921	IQQHVRARAAGKROH LAYQLRHAALV	27
IQ29:1922-1944	FQA AWKGMRLRQIARQH QCAAL	23
IQ30:1945-1967	IQSYRMHIQRRKWSIMKTAALQ	23
IQ31:1968-1994	IQLCYRAYKVGKEQRHLYLKT KAAVVT	27
IQ32:1995-2017	LQSA YRGMKVRKVAECHKAAVT	23
IQ33:2018-2040	IQSKFRAYRTQKKYTT YRTSAIV	23
IQ34:2041-2067	IQRWYRNKITTQ QHQEYLNLRRAVQ	27
IQ35:2068-2090	VQA AYRGI VRRRIQHMHMAATL	23
IQ36:2091-2113	IEAMFKMRQSRVRYLKMRTAALI	23
IQ37:2114-2140	IQVRYRAYYLGKIQHEKYL RTLKA IKT	27
IQ38:2141-2163	LQAGVRGARVRR TVRKM HFAATL	23
IQ39:2164-2186	IQSHFRGHRQ TYFHRLRKAATM	23
IQ40:2187-2213	VQORYRAVKEGSAEFQ RYSRLLRSVLL	27
IQ41:2214-2236	IQAAFRGLRTRRH LKAMHLAATL	23
IQ42:2237-2259	IQRRFRTFAMRRKFLSLRKT AIW	23
IQ43:2260-2285	IQQYRARLYAKYSRQ QLLLEKAVIK	26
IQ44:2286-2308	IQSSYRGWVVRKRVQ KMHRAATV	23
IQ45:2309-2331	IQATFRMHGAYMRYQH LKRA SVV	23
IQ46:2332-2349	IQVHTAAELQ RQKHA AVI	18
IQ47:2350-2372	LQAAVRGMKTRSHL KTMHSSATL	23
IQ48:2373-2395	IQSQFRAFIVRRFIALR KAAIF	23
IQ49:2396-2422	VQRKFRATLYAKHKLH QFLQLRKAAIT	27
IQ50:2423-2445	IQSSYRRIMVQK KLQEMHRAAAL	23
IQ51:2446-2468	IQATFRMHTYVAFHIW KCASIR	23
IQ52:2469-2497	IQQC YRTYRTIKLQKEKLI REEQHSAAVL	29
IQ53:2498-2520	IQSTYRMYRQRCFYQ QRRWAAKV	23
IQ54:2521-2544	IQKTYRANKRRQD LLYVCKEETPL	24
IQ55:2545-2567	LQMHFQGLNTAKQ GRQHGAA MI	23
IQ56:2568-2586	TQKHFRAFKARRLME AEERG	19
IQ57:2587-2608	EQAGCRKYKAKKYL SKVEAACR	22
IQ58:2609-2631	IQAWYRRWR AHKKYLTL LKAVNI	23
IQ59:2632-2654	IEGYLSAQLARRR FLKMR AAAI	23
IQ60:2655-2680	IQRKWRATLSVRGARE NLKRHRAACV	26
IQ61:2681-2703	IQAHFRGYQARQS FLQQRSAVL I	23
IQ62:2704-2730	IQRHVRAMVAAKQERIKY IKLKSTTVV	27
IQ63:2731-2768	VQALVRGWLVRKRVSEQK AKTRLFHF TAAAYCHMCALK	38
IQ64:2769-2791	IQRAYRLHVTL RLNAKHMDSVIF	23
IQ65:2792-2832	IQRWFRKRLQ RKRFTIEQYHKILSTR REAHACWLQDDRAASV	41
IQ66:2833-2855	IQKAVRRFLLCRRQ EKITSCATR	23
IQ67:2856-2878	IQALWRGYSWR KKNDHTEIKAIR	23

splice variant 1

Figure 2S Structure and evolution of mouse Aspm IQ repeats. The left column shows the number of IQ repeats and their positions in the full-length ASPM protein; the right column shows the length of the individual repeat. The red positions mark sites that are different between the mouse and rat proteins.