

Supplemental Table 1. Composition of Xp22 subgenomes

Percentage of sequence in repeats.

		I 50K	E 50K	I 100K	E 100K	I 250K	E 250K
GC		40.6	41.17	40.58	40.85	39.39	40.1
SINEs		15.85	15.79	12.19	13.14	10.49	10.8
	ALUs	13.25	14.04	9.44	11.44	7.62	9.4
	MIRs	2.6	1.74	2.75	1.69	2.87	1.43
LINEs		16.59	11.97	19.08	12.02	19.63	13.8
	LINE1	13.31	9.72	15.38	9.41	15.79	11.1
	LINE2	2.86	1.71	3.15	1.86	3.39	2.02
	L3/CR1	0.3	0.47	0.36	0.66	0.32	0.54
LTR		6.61	9.27	7.08	10.43	6.01	12.5
	MaLRs	3.88	4.25	4.04	4.21	4.04	5.62
	ERVL	1.31	1.17	1.48	1.6	1.14	1.48
	ERV_classI	1.33	3.74	1.34	4.42	0.57	5.27
	ERV_classII	0.1	0.1	0.2	0.2	0.22	0.11
DNA		4.39	3.93	4.61	3.76	4.97	3.58
	MER1_type	2.8	2.67	3.18	2.44	3.51	2.32
	MER2_type	0.97	0.78	0.8	0.9	0.75	0.9
Simple repeats		0.61	0.88	0.71	1.03	0.72	1.29
Low complexity		0.48	0.54	0.44	0.71	0.47	0.72

	Gene	Expression	TSS	Start of Coordinate	End of Coordinate	Contig number
I 50K	Hs.187608	1 / 9	10397719	10347719	10447719	1
	MID1	1 / 9	10398195	10348195	10448195	1
	HCCS	0 / 9	10889118	10839118	10939118	2
	H48827	1 / 9	11030019	10980019	11080019	3
	ARHGAP6	1 / 9	11443478	11393478	11493478	4

PRPS2	0 / 5	12569187	12519187	12619187	5
GLRA2	1 / 9	14307306	14257306	14357306	6
FANCB	0 / 9	14650848	14600848	14700848	7
MOSPD2	0 / 9	14651219	14601219	14701219	7
RAI2	0 / 9	17638484	17588484	17688484	8
Hs.220888	0 / 9	18124098	18074098	18174098	9
SCML2	0 / 9	18132458	18082458	18182458	9
Hs.149297	0 / 9	18863600	18813600	18913600	10
DKFZp686CC	0 / 9	18867606	18817606	18917606	10
PDHA1	0 / 6	19121707	19071707	19171707	11
CXorf23	1 / 9	19744081	19694081	19794081	12
RPS6KA3	0 / 9	20044407	19994407	20094407	13
YY2	0 / 9	21634259	21584259	21684259	14
SMS	0 / 6	21718524	21668524	21768524	14
FLJ37866	0 / 9	21950757	21900757	22000757	15
AA601738	1 / 9	23677260	23627260	23727260	16
PDK3	0 / 9	24243071	24193071	24293071	17
Hs.403937	0 / 9	24318005	24268005	24368005	17
POLA	0 / 9	24471720	24421720	24521720	18
Z39260	0 / 9	24583884	24533884	24633884	19

E 50K

NLGN4X	9 / 9	6005624	5955624	6055624	1
FLJ12417	9 / 9	6842305	6792305	6892305	2
HDHD1A	8 / 9	6925883	6875883	6975883	2
STS	9 / 9	6997232	6947232	7047232	2
Hs.186498	9 / 9	7123776	7073776	7173776	3
N74477	8 / 9	7188013	7138013	7238013	3
Hs.495638	9 / 9	7234805	7184805	7284805	3
PNPLA4	9 / 9	7705179	7655179	7755179	4
Hs.495641	9 / 9	8234774	8184774	8284774	5
MGC17403	9 / 9	13430899	13380899	13480899	6
RAB9A	9 / 9	13466997	13416997	13516997	6
SEDL	9 / 9	13512374	13462374	13562374	6
OFD1	6 / 6	13512536	13462536	13562536	6

Hs.41434	9 / 9	13556895	13506895	13606895	6
GPM6B	8 / 9	13716488	13666488	13766488	7
AA952971	9 / 9	13772392	13722392	13822392	7
FAM51A1	9 / 9	13807668	13757668	13857668	7
PIR	9 / 9	15271016	15221016	15321016	8
TMEM27	9 / 9	15442811	15392811	15492811	9
CA5BL	9 / 9	15480672	15430672	15530672	9
CA5B	9 / 9	15516081	15466081	15566081	9
Hs.121592	9 / 9	15614002	15564002	15664002	9
Hs.431654	9 / 9	15628315	15578315	15678315	9
AP1S2	9 / 9	15632757	15582757	15682757	9
Hs.431102	9 / 9	16370147	16320147	16420147	10
CALB3	9 / 9	16427937	16377937	16477937	10
CTPS2	9 / 9	16490700	16440700	16540700	10
SYAP1	9 / 9	16497411	16447411	16547411	10
CXORF15	9 / 9	16564216	16514216	16614216	10
RBBP7	9 / 9	16648094	16598094	16698094	10
ZFX	9 / 9	23929464	23879464	23979464	11

I 100K

Hs.187608	1 / 9	10397719	10297719	10497719	1
MID1	1 / 9	10398195	10298195	10498195	1
HCCS	0 / 9	10889118	10789118	10989118	2
H48827	1 / 9	11030019	10930019	11130019	2
GLRA2	1 / 9	14307306	14207306	14407306	3
FANCB	0 / 9	14650848	14550848	14750848	4
MOSPD2	0 / 9	14651219	14551219	14751219	4
RAI2	0 / 9	17638484	17538484	17738484	5
Hs.149297	0 / 9	18863600	18763600	18963600	6
DKFZp686C0	0 / 9	18867606	18767606	18967606	6
PDHA1	0 / 6	19121707	19021707	19221707	7
PDK3	0 / 9	24243071	24143071	24343071	8
Hs.403937	0 / 9	24318005	24218005	24418005	8

E 100K

NLGN4X	9 / 9	6005624	5905624	6105624	1
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FLJ12417	9 / 9	6842305	6742305	6942305	2
HDHD1A	8 / 9	6925883	6825883	7025883	2
STS	9 / 9	6997232	6897232	7097232	2
PNPLA4	9 / 9	7705179	7605179	7805179	3
Hs.495641	9 / 9	8234774	8134774	8334774	4
MGC17403	9 / 9	13430899	13330899	13530899	5
RAB9A	9 / 9	13466997	13366997	13566997	5
SEDL	9 / 9	13512374	13412374	13612374	5
OFD1	6 / 6	13512536	13412536	13612536	5
TMEM27	9 / 9	15442811	15342811	15542811	6
CA5BL	9 / 9	15480672	15380672	15580672	6
CA5B	9 / 9	15516081	15416081	15616081	6
Hs.121592	9 / 9	15614002	15514002	15714002	6
Hs.431654	9 / 9	15628315	15528315	15728315	6
Hs.431102	9 / 9	16370147	16270147	16470147	7
CALB3	9 / 9	16427937	16327937	16527937	7

I 250K

HCCS	0 / 9	10889118	10639118	11139118	1
H48827	1 / 9	11030019	10780019	11280019	1
FANCB	0 / 9	14650848	14400848	14900848	2
MOSPD2	0 / 9	14651219	14401219	14901219	2
POLA	0 / 9	24471720	24221720	24721720	3
Z39260	0 / 9	24583884	24333884	24833884	3

E 250K

NLGN4X	9 / 9	6005624	5755624	6255624	1
FLJ12417	9 / 9	6842305	6592305	7092305	2
HDHD1A	8 / 9	6925883	6675883	7175883	2
STS	9 / 9	6997232	6747232	7247232	2
Hs.186498	9 / 9	7123776	6873776	7373776	2
N74477	8 / 9	7188013	6938013	7438013	2
Hs.121592	9 / 9	15614002	15364002	15864002	3
Hs.431654	9 / 9	15628315	15378315	15878315	3
AP1S2	9 / 9	15632757	15382757	15882757	3