

**Table S4**

Y chromosome gene content of two pseudoisoYp chromosomes.

	Copy number per gene																										
	PAR1 genes	SRY	RPS4Y1	ZFY	TGF2LY	PCDH11Y	TSPY	AMELY	TBL1Y	PRKY	USP9Y	DDX3Y	UTY	TMSB4Y	VCY	NLGN4Y	XKRY	CDY	HSFY	CYorf15A	Cyorf15B	JARDID	EIFIAY	RPS4Y2	RBMY1	PRY	BPY2
Reference	1	1	1	1	1	1	33	1	1	1	1	1	1	1	2	1	2	4	2	1	1	1	1	6	2	3	4
WHT5557	2	2	2	2	2	2	34	2	2	2	1	1	1	1	2	1	2	2	1	1	1	1	1	2	0	0	0
AMC1574	2	2	2	2	2	2	34	2	2	2	1	1	1	1	2	1	2	4	2	1	1	1	1	6	2	3	4

Reference gene content is based on the euchromatic MSY sequence [1], except the average number of *TSPY* copies [2].**References**

- [1] H. Skaletsky, T. Kuroda-Kawaguchi, P.J. Minx, H.S. Cordum, L. Hillier, L.G. Brown, S. Repping, T. Pyntikova, J. Ali, T. Bieri, A. Chinwalla, A. Delehaunty, K. Delehaunty, H. Du, G. Fewell, L. Fulton, R. Fulton, T. Graves, S.F. Hou, P. Latrielle, S. Leonard, E. Mardis, R. Maupin, J. McPherson, T. Miner, W. Nash, C. Nguyen, P. Ozersky, K. Pepin, S. Rock, T. Rohlfing, K. Scott, B. Schultz, C. Strong, A. Tin-Wollam, S.P. Yang, R.H. Waterston, R.K. Wilson, S. Rozen, and D.C. Page, The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. *Nature* 423 (2003) 825-837.
- [2] S. Repping, S.K. van Daalen, L.G. Brown, C.M. Korver, J. Lange, J.D. Marszalek, T. Pyntikova, F. van der Veen, H. Skaletsky, D.C. Page, and S. Rozen, High mutation rates have driven extensive structural polymorphism among human Y chromosomes. *Nat. Genet.* 38 (2006) 463-467.