

**Table S2 PCR primers and conditions**

| Gene or X Chr Location | Primer     | Sequence 5' to 3'         | NCBI SNP /Polymorphism | Product size /SNP location | Restriction site | Allele specific fragments (bp) | PCR conditions (Anneal Temp. /cycle number) |
|------------------------|------------|---------------------------|------------------------|----------------------------|------------------|--------------------------------|---|
| <b>Hprt1 cDNA</b>      | Hprt F3    | TGCTGACCTGCTGGATTACA      | ss46946097             | 303bp                      | SfaNI            | 303-129S1                      | 61°C  |
|                        | Hprt R2    | GGCCTGTATCCAACACTTCG      | A-129/G-Cast Exon6     | 201bp                      |                  | 192,111-Cast                   | 26-28 cycles                                |
| <b>Mecp2 cDNA</b>      | Mecp2F3    | CCAGTTCCTGCTTTGATGTG      | NA                     | 217bp                      | Tsp509I          | 217-129S1                      | 58°C  |
|                        | Mecp2R3    | TTGTAGTGGCTCATGCTTGC      | G-129/A-Cast           | 157bp                      |                  | 155,62-Cast                    | 26-28 cycles                                |
| <b>Eda</b>             | X97.59f    | AGAGGCATTCTTGCTGCATT      | ss38410803             | 156bp                      | StyI             | 156-129S1                      | 57°C  |
|                        | X97.59r    | TAGGCATGCATGTGGTCATT      | G-129S1,C-Cast         | 120bp                      |                  | 120,36-Cast                    | 35 cycles                                   |
| <b>X99.35MB</b>        | X99.35f    | CGGTTGGCGAGTTAGAAAGA      | ss38408987             | 250bp                      | Tsp45I           | 93,157-129S1                   | 57°C  |
|                        | X99.35r    | CTGGCCGAGAGTTACCTGAG      | G-129S1,T-Cast         | 96bp                       |                  | 250-Cast                       | 35 cycles                                   |
| <b>Tsx</b>             | Tsx g1f    | ATCATTTATTTGGCCCCTGA      | ss49779081             | 209pb                      | ApeKI            | 129,80-129S1                   | 57°C  |
|                        | Tsx g2r    | AGCTTGGCAAGTGCCTCAT       | T-129S1,C-Cast Exon4   | 131bp                      |                  | 209-Cast                       | 35 cycles                                   |
| <b>Xist cDNA</b>       | Xist E2F1  | TGGAGTCTGTTTTGTGCTCCTGCC  | ss38407831             | 385bp                      | SmlI             | 24,82,279-129S1                | 58°C  |
|                        | Xist E4R1  | CCTTGCTGGGTTTCAGGAAAGCGTC | G-129S1,A-Cast Exon3   | 106bp                      |                  | 24,361-Cast                    | 26-28 cycles                                |
| <b>Xist</b>            | Xist IN2F1 | TCCGTTACTTGGTTGACTGAGA    | ss38407831             | 245bp                      | SmlI             | 168,77-129S1                   | 57°C  |
|                        | Xist E3R3  | TGTTTCAGAGTAGCGAGGACTTG   | G-129S1,A-Cast Exon3   | 168bp                      |                  | 245-Cast                       | 35 cycles                                   |
| <b>Xist-LC Exon1</b>   | XistF2     | CTCGTTTCCCGTGGATGTG       | NA                     | 489bp                      | No site          | NA                             | 57°C  |
|                        | XistR2     | CCGATGGGCTAAGGAGAAG       | A-129S1,T-Cast Exon1   | 172bp                      |                  |                                | 35 cycles                                   |
| <b>XChr100.69MB</b>    | X100.69f   | ATATAGCGCCCGAGACTCAA      | ss38407822             | 165bp                      | TaqαI            | 165-129S1                      | 57°C  |
|                        | X100.69r   | TCTCGTTGGGACCACACATA      | C-129, T-Cast          | 63bp                       |                  | 63,102-Cast                    | 35 cycles                                   |
| <b>XChr100.7MB</b>     | X100.7f    | TTTCTCCTGTGTGATAGGGTCTT   | ss49779045             | 158bp                      | Bsrl             | 60,98-129S1                    | 57°C  |
|                        | X100.7r    | AGGAAGTACCCAGGCTCCTC      | T-129, G-Cast          | 64bp                       |                  | 158-Cast                       | 35 cycles                                   |
| <b>Abcb7 cDNA</b>      | Abc F4     | TTCGAAAAGCACAAAGCATTG     | NA                     | 219bp                      | Hsp92II          | 51,158,10-129S1                | 58°C  |
|                        | Abc R4     | TATCAATGGCCATGTCTGGA      | G 129S1,C Cast Exon1   | 51bp                       |                  | 209,10-Cast                    | 26-28 cycles                                |
| <b>Jarid1c cDNA</b>    | Jarid F5   | TTCCCGAGGAGATGAAGATG      | ss38488639             | 291bp                      | Hpy188I          | 292-129S1                      | 58°C  |
|                        | Jarid R2   | CCGCCAAAACCTCTTCTCTA      | C-129S1,T-Cast Exon 8  | 94bp                       |                  | 96,196-Cast                    | 26-28 cycles                                |

NA Not Applicable