

Cases when neither origin of the active allele nor level of expression from each parental allele could be determined (ambiguous):		
a) when all three samples (or at least the daughter and a parent) are homozygous and bearing the same allele in transcriptome or genome .		
ACTG A TCC	ACTG A TCC	ACTG A TCC
ACTG A TCC	-----	ACTG A TCC
-----	ACTG A TCC	ACTG A TCC
b) both parental SNPs are homozygous in transcriptome , but different to each other, and the daughter homozygous, apparently only expressing the paternal allele. However, the mother could have an allele (A in this case), which is also silenced via XCI.		
ACTG A TCC	ACTG C TCC	ACTG A TCC
c) in the cases when the father is not sampled and the mother is homozygous in transcriptome , since the mother could have a repressed allele via XCI.		
-----	ACTG A TCC	ACTG C TCC
-----	ACTG A TCC	ACTG ^{A/c} TCC
d) if the father is not sampled and the mother is heterozygous in transcriptome or genome .		
-----	ACTG ^{A/c} TCC	ACTG ^{A/c} TCC
-----	ACTG ^{A/c} TCC	ACTG A TCC
e) the mother is heterozygous in transcriptome or genome and the daughter is homozygous, bearing the paternal allele (A) in transcriptome or genome ; however the daughter could have obtained the allele (A) from both parents and could be expressing both or only one.		
ACTG A TCC	ACTG ^{A/c} TCC	ACTG A TCC
When biallelic expression was observed in the daughter, we could determine parent-of-origin when:		
f) the father is homozygous (transcriptome or genome), the mother heterozygous (transcriptome or genome) and the daughter is heterozygous. In this case, the daughter obtained one allele (A) from the father and the second (C) from the mother.		
ACTG A TCC	ACTG ^{A/c} TCC	ACTG ^{A/c} TCC
g) both parental SNPs are homozygous (transcriptome or genome), but different to each other, and the daughter is heterozygous.		
ACTG A TCC	ACTG C TCC	ACTG ^{A/c} TCC
h) one of the alleles observed in the daughter is not present in either parent (transcriptome). Because we are certain of the father's SNP (A in this example), we can assume the mother is heterozygous at the position but the alternative allele is silenced through XCI (C in this example), thus, the daughter obtained the alternative allele (C) from the mother.		
ACTG A TCC	ACTG A TCC	ACTG ^{A/c} TCC
i) the father is homozygous (transcriptome or genome) and the daughter heterozygous.		
ACTG A TCC	-----	ACTG ^{A/c} TCC
j) the father is not sampled, the mother is homozygous in genome and the daughter is heterozygous.		
-----	ACTG A TCC	ACTG ^{C/A} TCC
In the cases when monoallelic expression was observed in the daughter, parent-of-origin could be determined when:		
k) one of the alleles observed in the daughter is not present in either parent (transcriptome or low coverage in mother genome). Because we are certain of the father's SNP (A in this example), we can assume the mother is heterozygous at the position but the alternative allele is silenced through XCI (C in this example). The daughter obtained the alternative allele (C) from the mother (paternal inactivation).		
ACTG A TCC	ACTG A TCC	ACTG C TCC
l) both parental SNPs are homozygous (transcriptome or genome), but different to each other, and the daughter is homozygous expressing the maternal allele (C). Since we are certain the father is homozygous (A in this case), the daughter is repressing the allele from the father (A) and only expressing the maternal allele (C) (paternal inactivation).		
ACTG A TCC	ACTG C TCC	ACTG C TCC
m) the father is homozygous (transcriptome or genome) and the daughter is homozygous, but different to each other, with the mother being heterozygous (transcriptome or genome); the daughter obtained the allele from the mother (C) and is repressing the allele from father (A) (paternal inactivation).		
ACTG A TCC	ACTG ^{A/c} TCC	ACTG C TCC
n) the father is homozygous (transcriptome or genome) same as the daughter but bearing different alleles, and the mother is not sampled. In which case the daughter obtained an A from the father and the expressed allele (C) from the mother (paternal inactivation).		
ACTG A TCC	-----	ACTG C TCC
o) both parental SNPs are homozygous in genome , but different to each other, and the daughter homozygous (maternal inactivation).		
ACTG A TCC	ACTG C TCC	ACTG A TCC
p) in the case when the father is not sampled and the mother is homozygous in genome and daughter is homozygous (paternal inactivation).		
-----	ACTG A TCC	ACTG C TCC