

## Supplementary Figure 1 – Alignments of the observed microhaplotype variation

### mh06PK-24844

	10	20	30	40	50	60
AL3 (=hg38)	AAAGTGATTACATCC-AAACGTGAGCAGGAG-GAAACTCGGAACATACTGTTTAAAGAACTAGTA					
AL7	.....G.....-.....T.....C.....G.....A.....					
AL4	.....C.....-.....C.....A.....					
AL1	.....-.....C.....A.....					
AL6	.....G.....-.....T.....G.....C.....G.....A.....					
AL10	.....-.....A.....					
AL5	.....C.....-.....C.....A.....A.....					
AL12	.....G.....T.....-.....C.....G.....A.....					
AL14	.....-.....T.....					
Chimp NW_003870541.1	...C...C.....-.....C.....A.....					

### mh06PK-25713

	10	20	30	40	50	60
AL3 (=hg38)	ATCCTCCTGCCTCGCCTCCGAAACTCTAGTTTACAGATATGAACCATAGCGCTAGCTCTTACTGTC					
AL4	.....A.....G.....G.....T.....C.....					
AL1	.....C.....					
AL2	...T.....					
AL5	.....A.....G.....G.....C.....					
AL7	.....C.....					

### mh07PK-38311

	10	20	30	40	50	60	70
AL3	AGGCTCAAGCAATTCTCCTGTCTTAGCCTCCCTAAGTAGCTGGGATTACAGGCATATGCTACCGTGACAGTCTCT						
AL2	.....A.....C.....T.....						
AL1 (=hg38)	.....A.....T.....T.....T.....						
AL4	.....A.....T.....T.....						
Chimp NW_003467377.1	.....C.....T.....						

### mh08PK-46625

	10	20	30	40	50	60
AL3 (=hg38)	GGAGCCCCGATGCTGGCAGACAGTCAGTGGTCGGTTGGCGGCCGCCACATAAGGGCACCAT					
AL6	.....G.....G.....T.....					
AL1	.....G.....T.....					
AL5	.....G.....T.....C.....					
AL7	.....G.....G.....					
AL4-Chimp	.....T.C.....G.....					

### mh10PK-62104

	10	20	30	40	50	60
AL1 (=hg38)	TTAGTGAGTTGAGCACATTCTGGCCAGCACTTGAGCAACAGCACACAATCAAGAAGGTGGCCGTCACC					
AL2	.....G.....T.....G.....A.....T.....					
AL3	.C.....G.....T.....G.....A.....T.....					
AL4	.....G.....T.....TG.....A.....T.....					
AL7	.....T.....G.....					
AL5, Chimp	.....G.....T.....					

### mh11PK-62906

	10	20	30	40	50	60
AL1	TCAGTGTCCCTTCTCCAGTCCCTCACTGTACCTAAGCCACAGGTATTTGTAGGAAGTACC					
AL2 (=hg38)	.....C.....					
AL8	.....T.....T.....T.....					
AL3	.....T.....					
AL4	.....T.....					
AL7	.....T.....T.....					
AL14	.....T.....C.....					
AL6	.....T.....C.....					
AL5	.....T.....					
AL11	.T...T...T...T...C...					
AL9	.....T...T...C...					
AL18	.....T.....T.....					
AL13	.....T...T.....					
AL15	.....T.....T.....					
AL23	.....T.....A.....					
AL19	.....T.....T.....C.....					
AL20	.....A.....					
AL22	.....T.....C.....					
AL25	.....T.....					
Chimp NW_003870057.1	.....T.....T...T...T...					

AL4  
AL10  
AL9  
AL1 (hg38)  
AL2  
AL13  
AL14  
AL5, Chimp

10 20 30 40 50 60

TCTATTACATGTTCGAAAGGGTGAGCTTTCCGAGGCAAAGATGTATCTTCTTCAGTCTGTACT

C.C. T G.

C.C.A. T G.

C. G.

C. A. G.

C.C. T G. A.

C. T G.

C.

AL10  
AL2  
AL4 (hg38)  
AL8  
AL19  
AL20  
AL14  
AL17  
AL16  
AL1  
AL7  
AL9  
AL18  
AL25  
AL26  
AL13, Chimp  
AL27, Chimp

10 20 30 40 50

GTGAGAAAAAGTCACCCACAGGCCTTATAAGGCACGGGAGTCTTTCACCTGTTT

G. G. C

. G. A. C

. A. GT. C

. A. GG. C

. GG. C

. G. C

. A. G. C

. G. C

. G. G. A. C

. G. C

. G. GG. T. C

. A. GG. A. C

. GA. GG. C

. C. A. C

. CG. C

. A. G. C

. A. G. T. C

AL5 (hg38)  
AL1  
AL6  
AL3  
AL10  
AL2  
AL4  
AL7  
AL8  
AL9  
AL11  
AL13  
Chimp NC\_006482.3

10 20 30 40 50 60

GGTTTTCAGAAACGACCCCGCTTATCCCTGGCTTGAATGTTAGGTTTCCCTAGGGACCGTTTCCACTCCC

A. . . . . T . . . . . A . . . . . A . . . . . A . . . . . A . . . . . A . . . . . T . . . . .

A. . . . . T . . . . . A . . . . . G . . . . . A . . . . . A . . . . . T . . . . .

A. . . . . T . . . . . A . . . . . G . . . . . C . . . . . A . . . . . T . . . . .

A. . . . . T . . . . . A . . . . . C . . . . . A . . . . . T . . . . .

A. . . . . T . . . . . A . . . . . T . . . . . A . . . . . T . . . . .

A. . . . . T . . . . . A . . . . . T . . . . . A . . . . . T . . . . .

. . . . . C . . . . . G . . . . . G . . . . . G . . . . . G . . . . . T . . . . .

A. . . . . T . . . . . A . . . . . G . . . . . G . . . . . G . . . . . A . . . . . T . . . . .

. . . . . C . T . G . GT . . . . . G . . . . . G . . . . . AG . . . . . t . . . . .

AL5  
AL4  
AL1  
AL6 (hg38)  
AL3  
AL9  
AL10  
AL8, Chimp

[illegible]

AL5  
AL8  
AL1 (hg38)  
AL2  
AL12  
AL4  
AL15  
AL18  
AL14, Chimp

[illegible]

#### mh16PK-83544

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      10      20      30      40      50      60
...|...|...|...|...|...|...|...|...|...|...|...|
AL4    TCTGGGCGGTATGTGGCTGAAGGGCAAGAGAAAGGAGAGACTGGGGCTGGGAACCCCTTATGGGAAC
AL3    ..C.....G.....A.....T
AL1 (hg38) ..C.....G.....C.....A.....T
AL2    ..C.....G.....G.....T
AL5    .....C.....
AL6, Chimp ..CA.....G.....A.....
Chimp NW_003870512.1 ..C.....G.....A.....
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#### mh17PK-86511

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      10      20      30      40      50      60      70
...|...|...|...|...|...|...|...|...|...|...|...|
AL3 (hg38) GTTAGAATAACGCAACACCAAACTGCTATCCCACTCGTGAGAGAACACAAATATCTCCCTCTCGCGGTT
AL1    ..C.....G.....T.....
AL10   .G.....G.....C.....C.....
AL9    .G.....G.....C.....
AL8    ..C.....G.....
AL15   .....T.....
AL11   .G.....
AL6    ..C.....G.....T.....A.....
AL7    ..C.....G.....
AL4    .....C.....
AL5    .....G.G.....T.....T.....
AL2    ..C.....G.....T.....T.....
AL12   .....C.....
AL14   ..C.....G.....T.....C.....
AL17   .....C.....
AL18   .G.....A.....G.....C.....
AL21   ..C.....TG.....
AL23   .....C.....T.....
AL25   ..C.....G.....
AL28   .....A.....
AL13   .....C.....
AL19   .....A.....G.....G.....
AL22   .....C.....
AL24   .G.....A.....G.....A.....C.....
AL26   ..C.....G.....C.....
AL27   ..C.....G.....C.....T.....
Chimp NC_006490.3 ..G.....G.....T.A.G.A.....TC.....T.....
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#### mh18PK-87558

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      10      20      30      40      50
...|...|...|...|...|...|...|...|...|
AL4    TGCCAGGTGTTAGCAACAAGGGTTTACAAAAACAGGTACAATTATTCC
AL1 (hg38) ..T.....G.....A.....G.....A.....T.
AL2    .....A.....G.....A.....T.
AL3    .....A.....
AL5, Chimp ..T.....G.....A.....T.
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#### mh22PK-104638

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      10      20      30      40      50      60      70      80
...|...|...|...|...|...|...|...|...|...|...|...|
AL1    CGGTGTTGACGCTCAGCTCACCAGTCCTGCCTACTTGCCAGCAGGTATTCTCAGAGGGACACAGTGAGAGCTGAGGGT
AL3    .....A.....
AL9    .A.....T.....TCTT.....C.....T.
AL2 (hg38) .....TCTT.....C.....T.
AL8    .....TCTT.....C.....T.
AL10   .....TCTT.....C.....T.
AL7    .....TCTT.....
AL6    T.....TCTT.....
AL4    ..C.....G.....
AL5    .....G.....
AL11   .A.....TCTT.....
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#### mh21PK-MX1s

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      10      20      30      40      50      60      70      80
...|...|...|...|...|...|...|...|...|...|...|...|
AL1    GCCAAGCTGTTTCCAAGGTCCCTGGGAATGCTGCTCTCTACAGAGGCATGTGCACAGACGGATCCTGCAAAATGGGATTGCAAGAC
AL5 (hg38) .....A.....T.....
AL2    .....T.....T.....
AL3    .T.....A.....T.....
AL4, Hum and Chimp .....T.....
```

For each MH, the alignment of all observed variants is displayed sorted (top to bottom) by the overall frequency (of all tested populations combined). When chimpanzee sequence data is available, the sequence is displayed at the bottom of the alignment. The haplotype with the sequence of GRCh38 is marked as (hg38).