

## **Appendix 5. Experimental validation of polymorphic germline L1Hs insertions.**

To experimentally validate the HAT-seq predicted germline insertions, we performed 3' junction PCR validation on a random subset of polymorphic insertions from among the ten individuals, including 8 sites out of 160 polymorphic KRs, 20 sites out of 451 KNRs, and 2 sites out of 48 UNKs (S8 Table [3' PCR NOTE]).

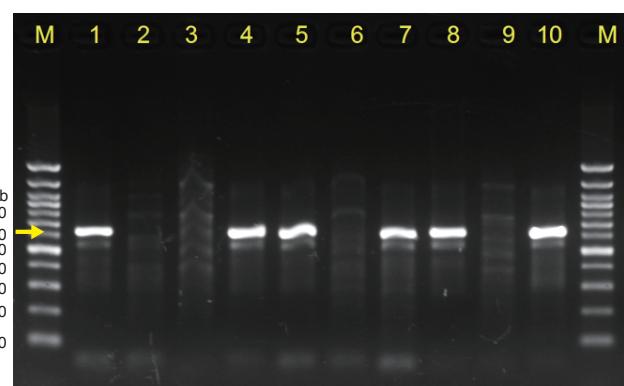
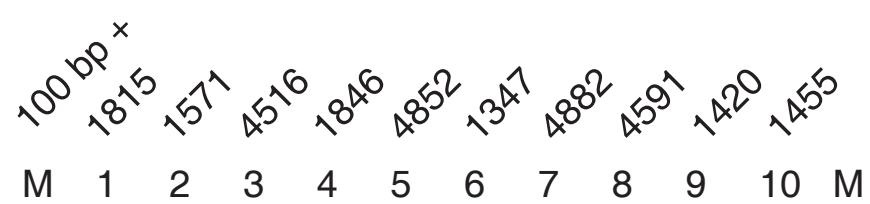
### 3' PCR validation of polymorphic germline L1Hs insertions

Validation primer sequences used for each candidate insertion, the predicted target amplicon sizes of 3' junction PCR products, and statistics on 3' PCR validation results could be found in S16 Table. The IDs of ten individuals were labeled at the top of each page and agarose gel image. M: 100 bp Plus DNA ladder. For details, see sections in the Materials and Methods “L1 3' PCR and full-length PCR validation”.

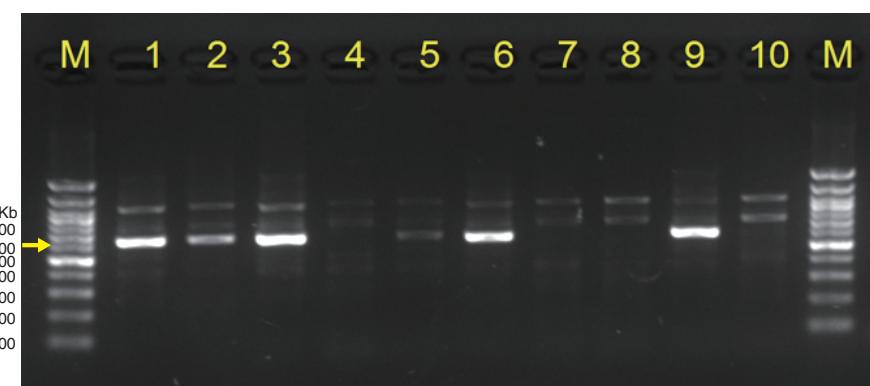
# Germline L1Hs KR insertions validation using 3' junction PCR



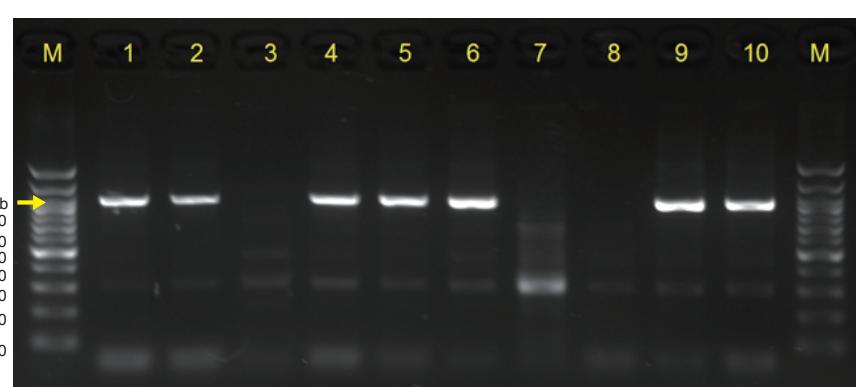
KR\_1



KR\_3



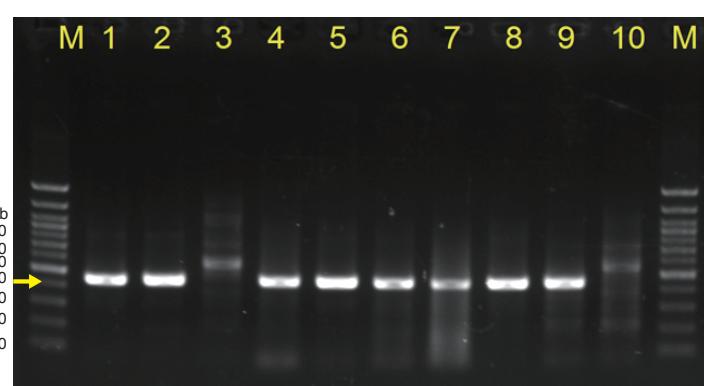
KR\_4



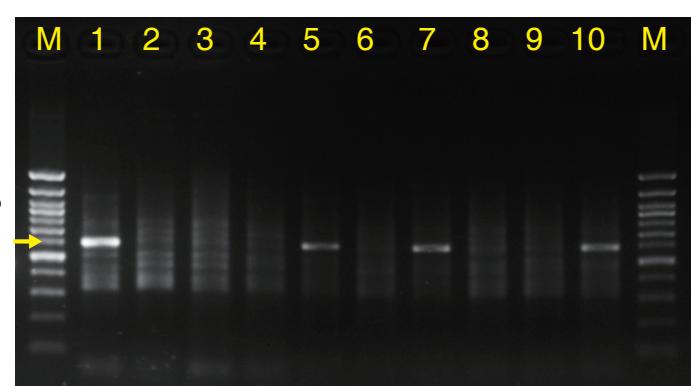
KR\_5



KR\_6

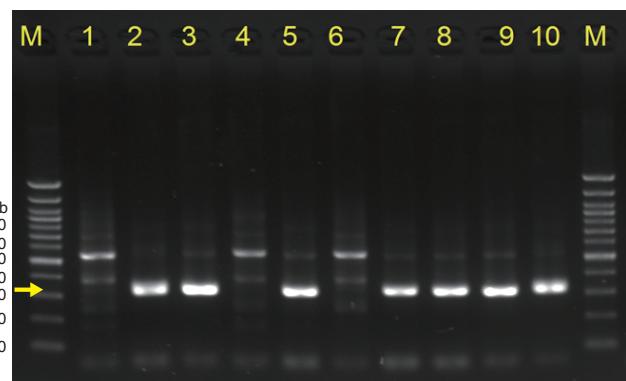
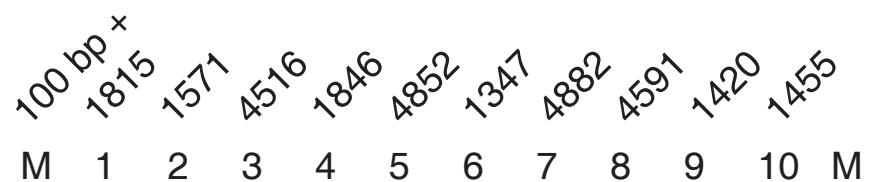


KR\_7

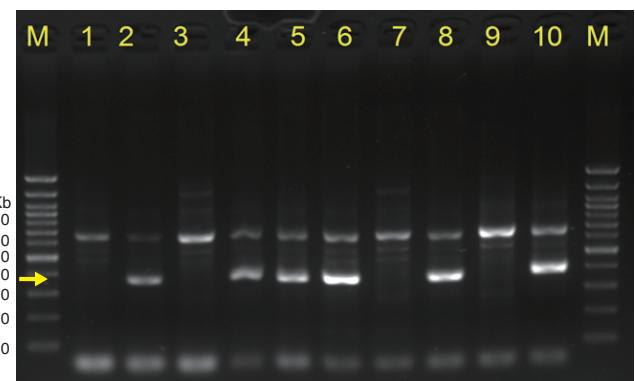


KR\_8

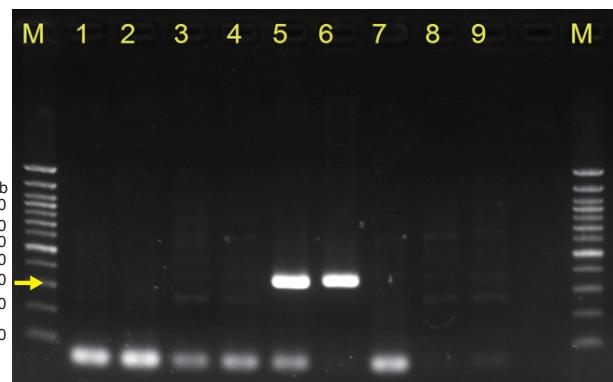
# Germline L1Hs KNR insertions validation using 3' junction PCR



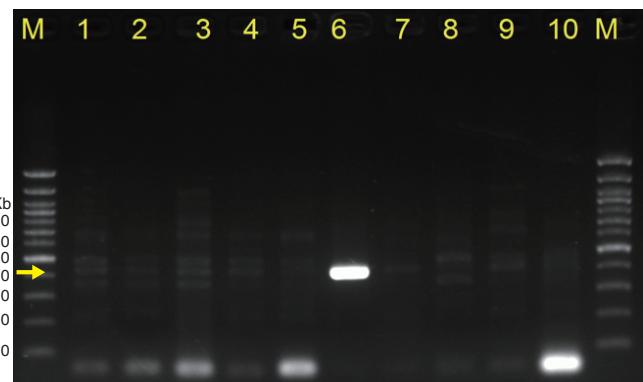
KNR\_1



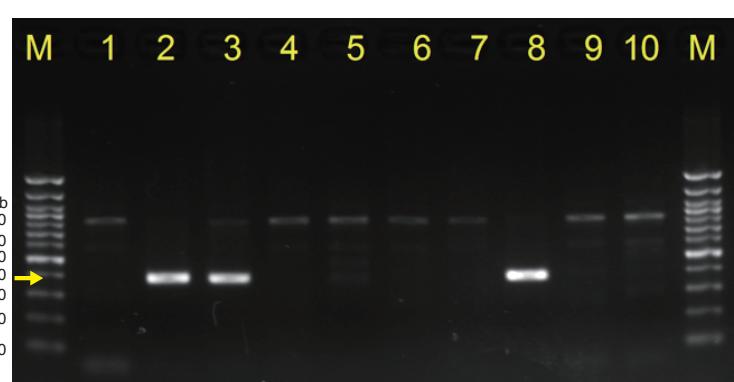
KNR\_2



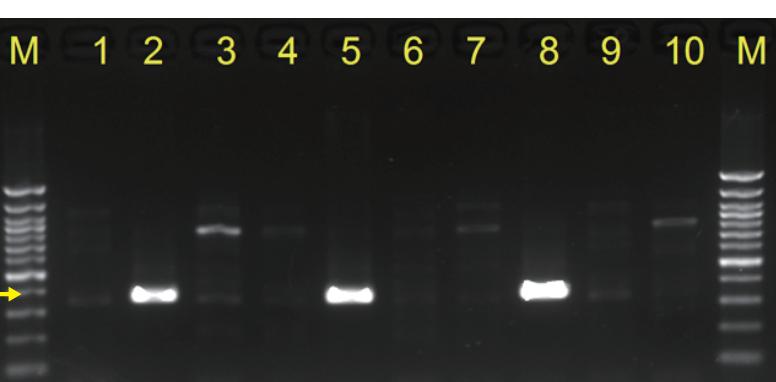
KNR\_3



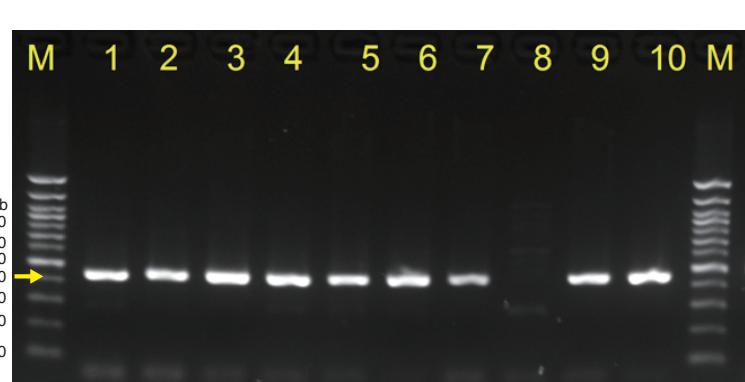
KNR\_4



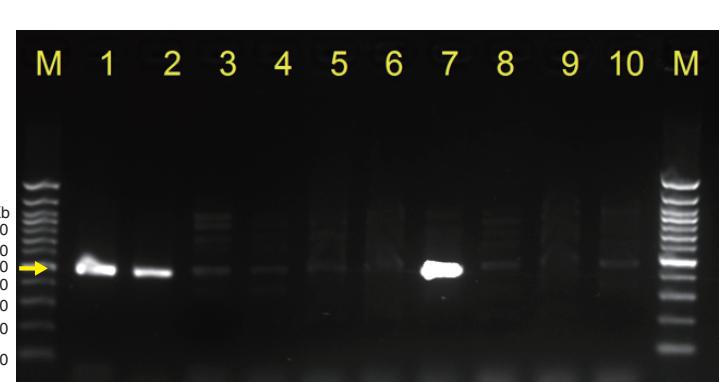
KNR\_5



KNR\_6



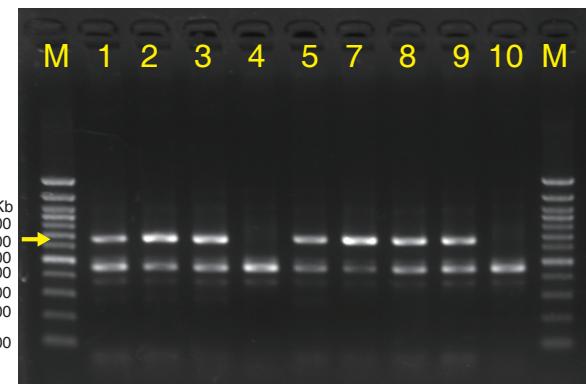
KNR\_7



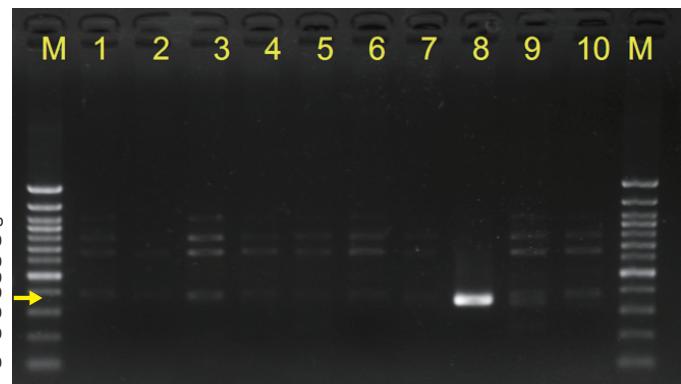
KNR\_8

# Germline L1Hs KNR insertions validation using 3' junction PCR

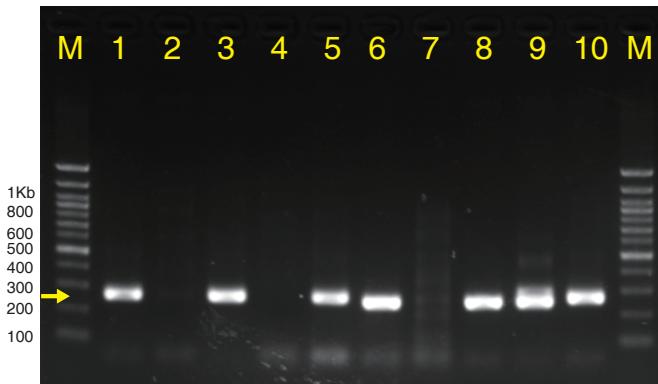
100 bp +  
1815 1571 4516 1846 4852 1347 4882 4591 1420 1455  
M 1 2 3 4 5 6 7 8 9 10 M



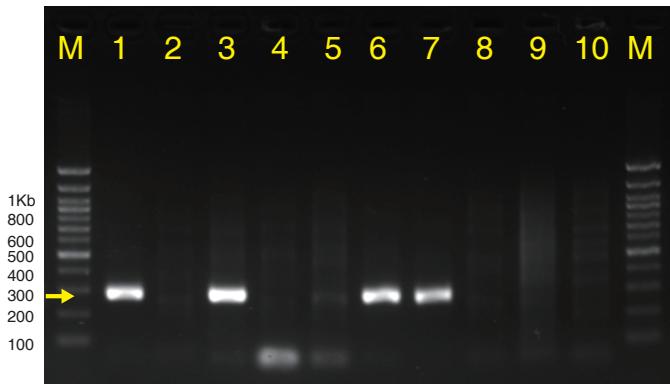
KNR\_9



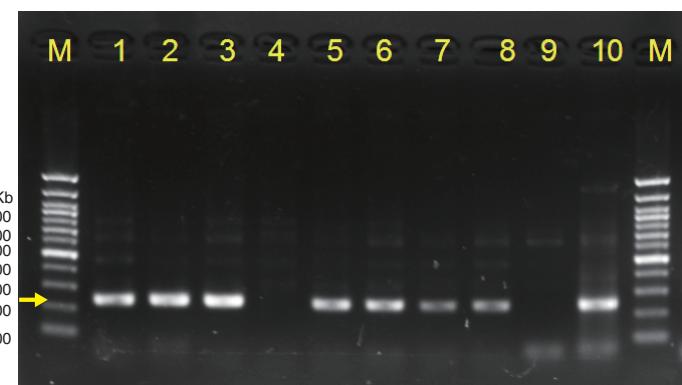
KNR\_10



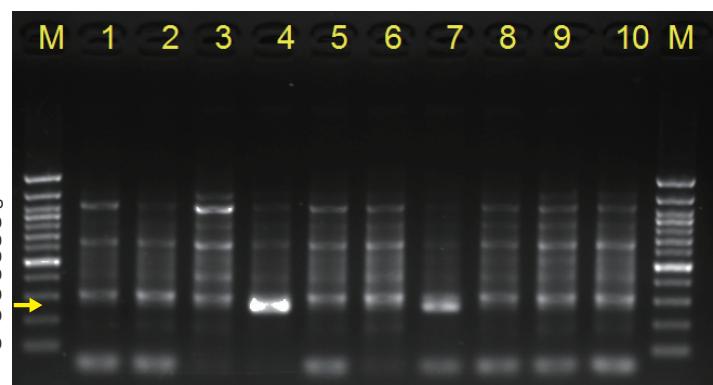
KNR\_11



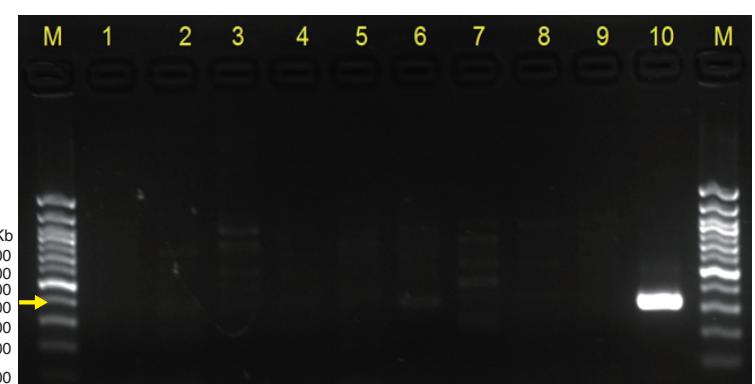
KNR\_12



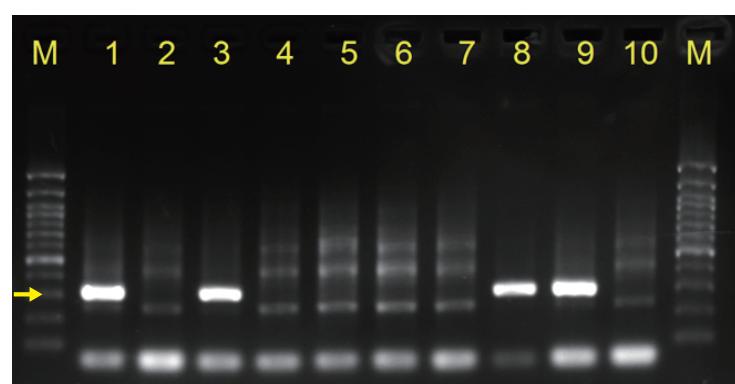
KNR\_13



KNR\_14



KNR\_15

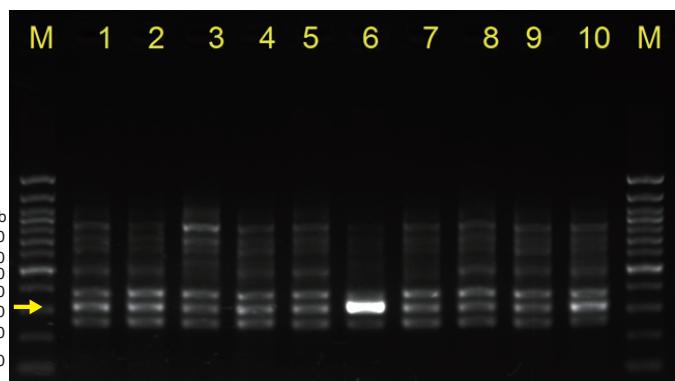
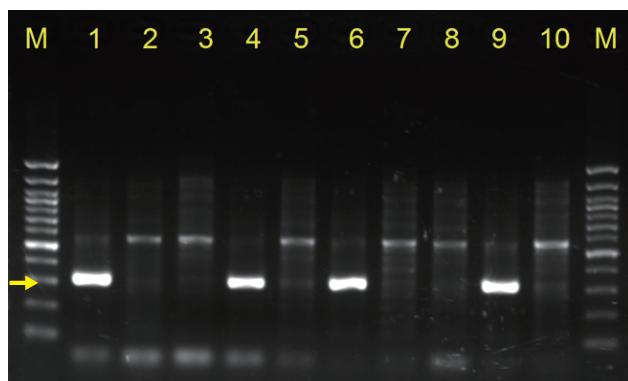
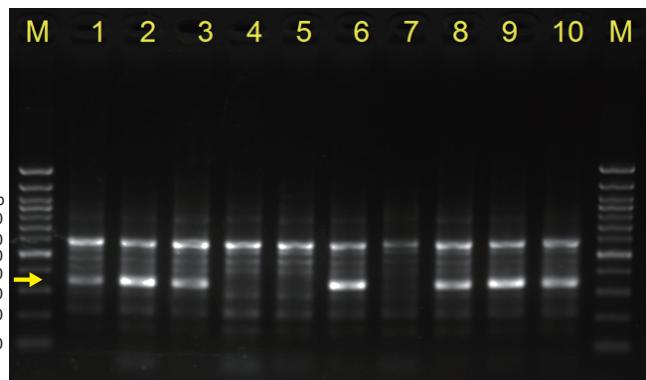
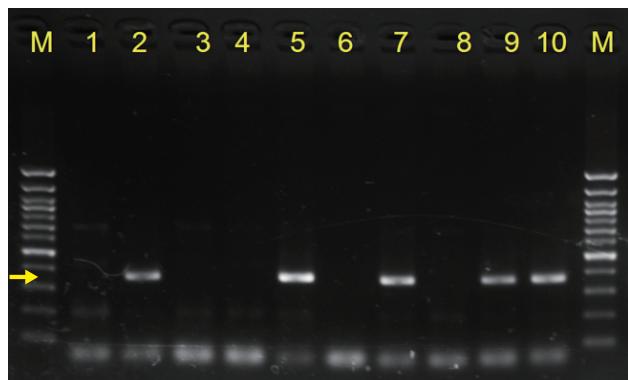


KNR\_16

## Germline L1Hs KNR insertions validation using 3' junction PCR

100 bp +  
 1815 1571 4516 1846 4852 1347 4882 4591 1420 1455

M	1	2	3	4	5	6	7	8	9	10	M
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## Germline L1Hs UNK insertions validation using 3' junction PCR

100 bp +  
 1815 1571 4516 1846 4852 1347 4882 4591 1420 1455

M	1	2	3	4	5	6	7	8	9	10	M
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