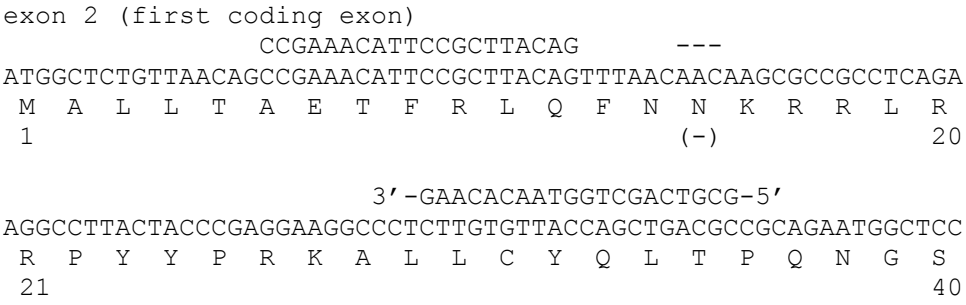
Supplementary Figure 1. APOBEC3H N15Δ genotyping assay.

Primers for the assay (melting temperature followed by the sequence)

Forward primer: 60.6°C CCGAAACATTCCGCTTACAG
Reverse primer: 59.5°C GCGTCAGCTGGTAACACAAG



Expected sizes for the APOBEC3H ΔN15 polymorphism.

15N/15N	15N/15Δ	15Δ/15Δ
90	90	
	87	87

Assay note: Run the amplification products on high-resolution gels.

Supplemental Figure 2. APOBEC3H R18L genotyping assay.

Primers for the assay (melting temperature followed by the sequence)

Forward primer: 61.0 C TGGGTTTGAAAAGTGGCTTG
Reverse primer: 60.0 C AACTGGGCCACTCAGATCC

```
TGGGTTTGAAAAGTGGCTTG
tgggtttgaaaagtggcttgagcctggggtgactcaagaggacgctcccttcatctttggttttccccttttctgttg

     exon 2 (first coding exon)                                        T
cacagAAACACGATGGCTCTGTTAACAGCCGAAACATTCCGCTTACAGTTTAACAACAAGCGCCGCCTCAGAAGGCC
            M  A  L  L  T  A  E  T  F  R  L  Q  F  N  N  K  R  R  L  R  R  P
            1                                                   L     20

TTACTACCCGAGGAAGGCCCTCTTGTGTTACCAGCTGACGCCGCAGAATGGCTCCACGCCCACGAGAGGCTACTTTG
  Y  Y  P  R  K  A  L  L  C  Y  Q  L  T  P  Q  N  G  S  T  P  T  R  G  Y  F
                      30                          40

AAAACAAGgtgccacacgggctctctgggcacagggccggcaggggctaaccccatctgatgtgtgcagaaaataca
E  N  K
      50

tgaaatgcctgcctataaatttctcaatttttgatgtaacaccctctgtgttttcgtaacccttggtgcctgcctgg

           3'-CCTAGACTCACCGGGTCAA-5'
gttttggcttagctggatctgagtggcccagtttccctaggacactcccattctttcccgtccccggacctctgaag
```

Assay is based upon the Fnu4HI restriction enzyme (recognition sequence; GCNGC). The internal digestion control site, common to both alleles, cuts faster than the diagnostic site, and so additional care must be taken for this assay. Underlined letters in the sequence above show the location of the recognition sites.

Expected sizes for the R18L genotyping assay.

Uncut	18L/18L	18L/18R	18R/18R
418			
	222	222	222
	196	196	
		141	141
		55	55

Supplementary Figure 3. APOBEC3H G105R genotyping assay.

Primers for the assay (melting temperature followed by sequence)

Forward primer: 71.0°C CATGGGACTGGACGAAGCGCA
Reverse primer: 72.3°C TGGGATCCACACAGAAGCCGCA

Underlined base in the forward primer creates a HhaI internal digestion control in the amplicon (no naturally occurring site exists nearby).

exon 3 (second coding exon)

```
            CATGGGACTGGACGAAGCGCA
AACGAGATCAAGTCCATGGGACTGGACGAAACGCAGTGCTACCAAGTCACCTGTTACCTC
 N  E  I  K  S  M  G  L  D  E  T  Q  C  Y  Q  V  T  C  Y  L
61                                                        80

ACGTGGAGCCCCTGCTCCTCCTGTGCCTGGGAGCTGGTTGACTTCATCAAGGCTCACGAC
 T  W  S  P  C  S  S  C  A  W  E  L  V  D  F  I  K  A  H  D
81                                                        100
           C
CATCTGAACCTGGGCATCTTCGCCTCCCGCCTGTACTACCACTGGTGCAAGCCCCAGCAG
 H  L  N  L  G  I  F  A  S  R  L  Y  Y  H  W  C  K  P  Q  Q
101         R                                             120

     3-ACGCCGAAGACACACCTAGGGTCC-5'
AAGGGGCTGCGGCTTCTGTGTGGATCCCAGGTCCCGGTGGAGGTCATGGGCTTCCCAGgt
 K  G  L  R  L  L  C  G  S  Q  V  P  V  E  V  M  G  F  P  E
121                                                       140
```

Assay is based upon the HhaI restriction enzyme (recognition sequence GCGC).

Expected sizes for the G105R genotyping assay.

Uncut	105G/105G	105G/105R	105R/105R
197			
	180	180	
		102	102
		78	78
	17	17	17

Assay notes: The amplified region is GC-rich (60.9%), so PCRs are conducted with 1 M betaine included. The primers have relatively high Tm's, so annealing and extension can be done at the same temperature (that is, 72°C).

Supplemental Figure 4. APOBEC3H K121D genotyping assay.

Primers for the assay (melting temperature followed by the sequence)

Forward primer: 59.8°C CCACGCACTAGAAAGTTCACC
Reverse primer: 60.5°C GGTTTGCACTCTTATAACTGCAAAG

Assay is based upon the HpyAV restriction enzyme (recognition sequences; [CCTTC]N6 and N6[GAAGG]). Underlined letters in the sequence above show the location of the recognition sites.

Expected sizes for the D121K genotyping assay.

Uncut	121D/121D	121D/121K	121K/121K
441			
	322	322	
		220	220
	119	119	119
		102	102

Supplementary Figure 5. APOBEC3H E140K genotyping assay

Forward primer: 72.0°C GCATCTTCGCCTCCCGCCTGT
Reverse primer: 70.7°C CCCTGCCAAGCCTGTGCCC

exon 3 (second coding exon)

```
                                    GCATCTTCGCCTCCCGCCTGT
GACTTCATCAAGGCTCACGACCATCTGAACCTGGGCATCTTCGCCTCCCGCCTGTACTACCACTGGTGCAAGCCCCA
 D  F  I  K  A  H  D  H  L  N  L  G  I  F  A  S  R  L  Y  Y  H  W  C  K  P  Q
94
                                                                    A
GCAGAAGGGGCTGCGGCTTCTGTGTGGATCCCAGGTCCCGGTGGAGGTCATGGGCTTCCCAGgtaggaaagaggctt
  Q  K  G  L  R  L  L  C  G  S  Q  V  P  V  E  V  M  G  F  P  E
 120                                                                 K
                                                                    140
                        3'-CCCGTGTCCGAACCGTCCC-5'
tgcagttataagagtgcaaacccccgggggcacaggcttggcaggggctgggggttgggggttgggggttggaggag
```

Assay is based on the BstNI restriction enzyme (recognition sequence = CCWGG, where W represents A or T).

Expected sizes for the E140K genotyping assay.

Uncut	140K/140K	140K/140E	140E/140E
166			
	90	90	
	76	76	76
		62	62
		28	28

Assay notes: The amplified region is GC-rich (60.9%), so PCRs are conducted with 1 M betaine included. The primers have relatively high Tm's, so annealing an extension can be done at the same temperature (that is, 72°C).

Supplemental Figure 6. APOBEC3H E178D genotyping assay.

Primers for the assay (melting temperature followed by the sequence)

Forward primer: 58.1°C CAAGAGCTCCTGGCACTG
Reverse primer: 61.0°C CTGGTGCGAGAGGAGAACAC

```
CAAGAGCTCCTGGCACTG                                                    exon 4
caagagctcctggcactgcagctgctgcccctggggcctggctggtttccctcttccctctcagAGTTTGCTGACTG
                                                                       E  F  A  D  C
                                                                      140

CTGGGAAAACTTTGTGGACCACGAGAAACCGCTTTCCTTCAACCCCTATAAGATGTTAGAGGAGCTAGATAAAAACA
  W  E  N  F  V  D  H  E  K  P  L  S  F  N  P  Y  K  M  L  E  E  L  D  K  N

                         C
GTCGAGCCATAAAGCGACGGCTTGAGAGGATAAAGGTGAGGCACTGTCCTGCCTGCTGCCCCCGACCTCCTCACCGC
S  R  A  I  K  R  R  L  E  R  I  K
                         D      181

ctgccgcagccccatacccagtcacacctctgcccactgcccttacccctacctttttttctttttctttttctttct
tttttgagacagggtctcactctgtcacccaggcaggagggcagtggtgtgatctcggctcagtgcaacctctgcct
cccgggttcaagtgattctcctgcctcagcctcccgagtagctgggagtacaggcactcgccaccatgcccagctaa
tttttgcatttttagtagagatggggtttcaccatgttgcccaggctggtcttagaactcttggcctcaagtgacct
gccttccttggcctcccaaagtgctgggattacaggtgtgagccaccgtgccccgccccactacctgtttctttttt

CACAAGAGGAGAGCGTGGTC-5'
gtgttctcctctcgcaccaggggctccttc
```

Assay is based upon the SmlI restriction enzyme (recognition sequence; CTYRAG).

Expected sizes for the D178K genotyping assay.

Uncut	178D/178D	178D/178E	178E/178E
636			
	530	530	
	353	353	
		177	177
	106	106	106

Assay note: Optimal digestion temperature for SmlI is 55°C.