

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Usage of the “Y-Mix Database Filter”

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Nuclear DNA Technical Leader

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Usage of the “California Department of Justice (Cal DOJ) Y-Mixture Analysis Software”

1 Procedure

1.1 **Open the Cal DOJ Y mixture tool file**

1.2 Excel window will open. Enable the content by choosing Options → Enable this content → OK

Y-Mix Database Filter 3.0.1
BETA 10/15/15pm

Microsoft Office Security Options
Security Alert - Macro

Macro
Macros have been disabled. Macros might contain viruses or other security hazards. Do not enable this content unless you trust the source of this file.

Warning: It is not possible to determine that this content came from a trustworthy source. You should leave this content disabled unless the content provides critical functionality and you trust its source.

More information
File Path: M:\..._Y_MAIN\Validations\Y STR mixture tool\Testing\CADDOJ-Y-MixTool.xltn

Help protect me from unknown content (recommended)
 Enable this content

Open the Trust Center

OK Cancel

Database Source:
www.usysrtdatabase.org
Release 4.1 (Sept. 20, 2015)

Upper Confidence Interval:
Clopper and Pearson approach
(Biometrika 1934)

Limit data
Tre

Desired UCI **95.0%**

95% UCI 1 in...

This is a BETA version Filter spreadsheet. If it has been performed to achieve results, there is no accuracy. Prior to its use in case matters, users should independently confirm case basis. The author assumes no responsibility associated with performance. User responsibility for i steven.my

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|--------------------------------------|---|-------------------|
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1.3 Using drop-down menu, enter all of the alleles of the mixture into the loci columns within the “Profile” worksheet.

Note: The order of loci in the Y-STR Mixture Tool is different from the Y-STR kit order. Please carefully enter these loci as they cannot be copied and pasted.

Y-Mix Database Filter 3.0.1
BETA 10/15/15pm

Database Source: www.usystrdatabase.org
Release 4.1 (Sept. 20, 2015)

Upper Confidence Interval:
Clopper and Pearson approach
(Biometrika 1934)

Limit database to samples with all the loci entered above?
Treat this profile as a single source sample? Yes No

Desired UCI: **95.0%**

| New Variant: | D1F | D1S | D3S | D3S1 | D3S2 | D3S3 | D3S4 | D3S5 | D3S6 | D3S7 | D3S8 | D3S9 | D3S10 | D3S11 | D3S12 | D3S13 | D3S14 | D3S15 | D3S16 | D3S17 | D3S18 | D3S19 | D3S20 | D3S21 | D3S22 | D3S23 | D3S24 | D3S25 | D3S26 | D3S27 | D3S28 | D3S29 | D3S30 | D3S31 | D3S32 | D3S33 | D3S34 | D3S35 | D3S36 | D3S37 | D3S38 | D3S39 | D3S40 | D3S41 | D3S42 | D3S43 | D3S44 | D3S45 | D3S46 | D3S47 | D3S48 | D3S49 | D3S50 | D3S51 | D3S52 | D3S53 | D3S54 | D3S55 | D3S56 | D3S57 | D3S58 | D3S59 | D3S60 | D3S61 | D3S62 | D3S63 | D3S64 | D3S65 | D3S66 | D3S67 | D3S68 | D3S69 | D3S70 | D3S71 | D3S72 | D3S73 | D3S74 | D3S75 | D3S76 | D3S77 | D3S78 | D3S79 | D3S80 | D3S81 | D3S82 | D3S83 | D3S84 | D3S85 | D3S86 | D3S87 | D3S88 | D3S89 | D3S90 | D3S91 | D3S92 | D3S93 | D3S94 | D3S95 | D3S96 | D3S97 | D3S98 | D3S99 | D3S100 | D3S101 | D3S102 | D3S103 | D3S104 | D3S105 | D3S106 | D3S107 | D3S108 | D3S109 | D3S110 | D3S111 | D3S112 | D3S113 | D3S114 | D3S115 | D3S116 | D3S117 | D3S118 | D3S119 | D3S120 | D3S121 | D3S122 | D3S123 | D3S124 | D3S125 | D3S126 | D3S127 | D3S128 | D3S129 | D3S130 | D3S131 | D3S132 | D3S133 | D3S134 | D3S135 | D3S136 | D3S137 | D3S138 | D3S139 | D3S140 | D3S141 | D3S142 | D3S143 | D3S144 | D3S145 | D3S146 | D3S147 | D3S148 | D3S149 | D3S150 | D3S151 | D3S152 | D3S153 | D3S154 | D3S155 | D3S156 | D3S157 | D3S158 | D3S159 | D3S160 | D3S161 | D3S162 | D3S163 | D3S164 | D3S165 | D3S166 | D3S167 | D3S168 | D3S169 | D3S170 | D3S171 | D3S172 | D3S173 | D3S174 | D3S175 | D3S176 | D3S177 | D3S178 | D3S179 | D3S180 | D3S181 | D3S182 | D3S183 | D3S184 | D3S185 | D3S186 | D3S187 | D3S188 | D3S189 | D3S190 | D3S191 | D3S192 | D3S193 | D3S194 | D3S195 | D3S196 | D3S197 | D3S198 | D3S199 | D3S200 | D3S201 | D3S202 | D3S203 | D3S204 | D3S205 | D3S206 | D3S207 | D3S208 | D3S209 | D3S210 | D3S211 | D3S212 | D3S213 | D3S214 | D3S215 | D3S216 | D3S217 | D3S218 | D3S219 | D3S220 | D3S221 | D3S222 | D3S223 | D3S224 | D3S225 | D3S226 | D3S227 | D3S228 | D3S229 | D3S230 | D3S231 | D3S232 | D3S233 | D3S234 | D3S235 | D3S236 | D3S237 | D3S238 | D3S239 | D3S240 | D3S241 | D3S242 | D3S243 | D3S244 | D3S245 | D3S246 | D3S247 | D3S248 | D3S249 | D3S250 | D3S251 | D3S252 | D3S253 | D3S254 | D3S255 | D3S256 | D3S257 | D3S258 | D3S259 | D3S260 | D3S261 | D3S262 | D3S263 | D3S264 | D3S265 | D3S266 | D3S267 | D3S268 | D3S269 | D3S270 | D3S271 | D3S272 | D3S273 | D3S274 | D3S275 | D3S276 | D3S277 | D3S278 | D3S279 | D3S280 | D3S281 | D3S282 | D3S283 | D3S284 | D3S285 | D3S286 | D3S287 | D3S288 | D3S289 | D3S290 | D3S291 | D3S292 | D3S293 | D3S294 | D3S295 | D3S296 | D3S297 | D3S298 | D3S299 | D3S300 | D3S301 | D3S302 | D3S303 | D3S304 | D3S305 | D3S306 | D3S307 | D3S308 | D3S309 | D3S310 | D3S311 | D3S312 | D3S313 | D3S314 | D3S315 | D3S316 | D3S317 | D3S318 | D3S319 | D3S320 | D3S321 | D3S322 | D3S323 | D3S324 | D3S325 | D3S326 | D3S327 | D3S328 | D3S329 | D3S330 | D3S331 | D3S332 | D3S333 | D3S334 | D3S335 | D3S336 | D3S337 | D3S338 | D3S339 | D3S340 | D3S341 | D3S342 | D3S343 | D3S344 | D3S345 | D3S346 | D3S347 | D3S348 | D3S349 | D3S350 | D3S351 | D3S352 | D3S353 | D3S354 | D3S355 | D3S356 | D3S357 | D3S358 | D3S359 | D3S360 | D3S361 | D3S362 | D3S363 | D3S364 | D3S365 | D3S366 | D3S367 | D3S368 | D3S369 | D3S370 | D3S371 | D3S372 | D3S373 | D3S374 | D3S375 | D3S376 | D3S377 | D3S378 | D3S379 | D3S380 | D3S381 | D3S382 | D3S383 | D3S384 | D3S385 | D3S386 | D3S387 | D3S388 | D3S389 | D3S390 | D3S391 | D3S392 | D3S393 | D3S394 | D3S395 | D3S396 | D3S397 | D3S398 | D3S399 | D3S400 | D3S401 | D3S402 | D3S403 | D3S404 | D3S405 | D3S406 | D3S407 | D3S408 | D3S409 | D3S410 | D3S411 | D3S412 | D3S413 | D3S414 | D3S415 | D3S416 | D3S417 | D3S418 | D3S419 | D3S420 | D3S421 | D3S422 | D3S423 | D3S424 | D3S425 | D3S426 | D3S427 | D3S428 | D3S429 | D3S430 | D3S431 | D3S432 | D3S433 | D3S434 | D3S435 | D3S436 | D3S437 | D3S438 | D3S439 | D3S440 | D3S441 | D3S442 | D3S443 | D3S444 | D3S445 | D3S446 | D3S447 | D3S448 | D3S449 | D3S450 | D3S451 | D3S452 | D3S453 | D3S454 | D3S455 | D3S456 | D3S457 | D3S458 | D3S459 | D3S460 | D3S461 | D3S462 | D3S463 | D3S464 | D3S465 | D3S466 | D3S467 | D3S468 | D3S469 | D3S470 | D3S471 | D3S472 | D3S473 | D3S474 | D3S475 | D3S476 | D3S477 | D3S478 | D3S479 | D3S480 | D3S481 | D3S482 | D3S483 | D3S484 | D3S485 | D3S486 | D3S487 | D3S488 | D3S489 | D3S490 | D3S491 | D3S492 | D3S493 | D3S494 | D3S495 | D3S496 | D3S497 | D3S498 | D3S499 | D3S500 | D3S501 | D3S502 | D3S503 | D3S504 | D3S505 | D3S506 | D3S507 | D3S508 | D3S509 | D3S510 | D3S511 | D3S512 | D3S513 | D3S514 | D3S515 | D3S516 | D3S517 | D3S518 | D3S519 | D3S520 | D3S521 | D3S522 | D3S523 | D3S524 | D3S525 | D3S526 | D3S527 | D3S528 | D3S529 | D3S530 | D3S531 | D3S532 | D3S533 | D3S534 | D3S535 | D3S536 | D3S537 | D3S538 | D3S539 | D3S540 | D3S541 | D3S542 | D3S543 | D3S544 | D3S545 | D3S546 | D3S547 | D3S548 | D3S549 | D3S550 | D3S551 | D3S552 | D3S553 | D3S554 | D3S555 | D3S556 | D3S557 | D3S558 | D3S559 | D3S560 | D3S561 | D3S562 | D3S563 | D3S564 | D3S565 | D3S566 | D3S567 | D3S568 | D3S569 | D3S570 | D3S571 | D3S572 | D3S573 | D3S574 | D3S575 | D3S576 | D3S577 | D3S578 | D3S579 | D3S580 | D3S581 | D3S582 | D3S583 | D3S584 | D3S585 | D3S586 | D3S587 | D3S588 | D3S589 | D3S590 | D3S591 | D3S592 | D3S593 | D3S594 | D3S595 | D3S596 | D3S597 | D3S598 | D3S599 | D3S600 | D3S601 | D3S602 | D3S603 | D3S604 | D3S605 | D3S606 | D3S607 | D3S608 | D3S609 | D3S610 | D3S611 | D3S612 | D3S613 | D3S614 | D3S615 | D3S616 | D3S617 | D3S618 | D3S619 | D3S620 | D3S621 | D3S622 | D3S623 | D3S624 | D3S625 | D3S626 | D3S627 | D3S628 | D3S629 | D3S630 | D3S631 | D3S632 | D3S633 | D3S634 | D3S635 | D3S636 | D3S637 | D3S638 | D3S639 | D3S640 | D3S641 | D3S642 | D3S643 | D3S644 | D3S645 | D3S646 | D3S647 | D3S648 | D3S649 | D3S650 | D3S651 | D3S652 | D3S653 | D3S654 | D3S655 | D3S656 | D3S657 | D3S658 | D3S659 | D3S660 | D3S661 | D3S662 | D3S663 | D3S664 | D3S665 | D3S666 | D3S667 | D3S668 | D3S669 | D3S670 | D3S671 | D3S672 | D3S673 | D3S674 | D3S675 | D3S676 | D3S677 | D3S678 | D3S679 | D3S680 | D3S681 | D3S682 | D3S683 | D3S684 | D3S685 | D3S686 | D3S687 | D3S688 | D3S689 | D3S690 | D3S691 | D3S692 | D3S693 | D3S694 | D3S695 | D3S696 | D3S697 | D3S698 | D3S699 | D3S700 | D3S701 | D3S702 | D3S703 | D3S704 | D3S705 | D3S706 | D3S707 | D3S708 | D3S709 | D3S710 | D3S711 | D3S712 | D3S713 | D3S714 | D3S715 | D3S716 | D3S717 | D3S718 | D3S719 | D3S720 | D3S721 | D3S722 | D3S723 | D3S724 | D3S725 | D3S726 | D3S727 | D3S728 | D3S729 | D3S730 | D3S731 | D3S732 | D3S733 | D3S734 | D3S735 | D3S736 | D3S737 | D3S738 | D3S739 | D3S740 | D3S741 | D3S742 | D3S743 | D3S744 | D3S745 | D3S746 | D3S747 | D3S748 | D3S749 | D3S750 | D3S751 | D3S752 | D3S753 | D3S754 | D3S755 | D3S756 | D3S757 | D3S758 | D3S759 | D3S760 | D3S761 | D3S762 | D3S763 | D3S764 | D3S765 | D3S766 | D3S767 | D3S768 | D3S769 | D3S770 | D3S771 | D3S772 | D3S773 | D3S774 | D3S775 | D3S776 | D3S777 | D3S778 | D3S779 | D3S780 | D3S781 | D3S782 | D3S783 | D3S784 | D3S785 | D3S786 | D3S787 | D3S788 | D3S789 | D3S790 | D3S791 | D3S792 | D3S793 | D3S794 | D3S795 | D3S796 | D3S797 | D3S798 | D3S799 | D3S800 | D3S801 | D3S802 | D3S803 | D3S804 | D3S805 | D3S806 | D3S807 | D3S808 | D3S809 | D3S810 | D3S811 | D3S812 | D3S813 | D3S814 | D3S815 | D3S816 | D3S817 | D3S818 | D3S819 | D3S820 | D3S821 | D3S822 | D3S823 | D3S824 | D3S825 | D3S826 | D3S827 | D3S828 | D3S829 | D3S830 | D3S831 | D3S832 | D3S833 | D3S834 | D3S835 | D3S836 | D3S837 | D3S838 | D3S839 | D3S840 | D3S841 | D3S842 | D3S843 | D3S844 | D3S845 | D3S846 | D3S847 | D3S848 | D3S849 | D3S850 | D3S851 | D3S852 | D3S853 | D3S854 | D3S855 | D3S856 | D3S857 | D3S858 | D3S859 | D3S860 | D3S861 | D3S862 | D3S863 | D3S864 | D3S865 | D3S866 | D3S867 | D3S868 | D3S869 | D3S870 | D3S871 | D3S872 | D3S873 | D3S874 | D3S875 | D3S876 | D3S877 | D3S878 | D3S879 | D3S880 | D3S881 | D3S882 | D3S883 | D3S884 | D3S885 | D3S886 | D3S887 | D3S888 | D3S889 | D3S890 | D3S891 | D3S892 | D3S893 | D3S894 | D3S895 | D3S896 | D3S897 | D3S898 | D3S899 | D3S900 | D3S901 | D3S902 | D3S903 | D3S904 | D3S905 | D3S906 | D3S907 | D3S908 | D3S909 | D3S910 | D3S911 | D3S912 | D3S913 | D3S914 | D3S915 | D3S916 | D3S917 | D3S918 | D3S919 | D3S920 | D3S921 | D3S922 | D3S923 | D3S924 | D3S925 | D3S926 | D3S927 | D3S928 | D3S929 | D3S930 | D3S931 | D3S932 | D3S933 | D3S934 | D3S935 | D3S936 | D3S937 | D3S938 | D3S939 | D3S940 | D3S941 | D3S942 | D3S943 | D3S944 | D3S945 | D3S946 | D3S947 | D3S948 | D3S949 | D3S950 | D3S951 | D3S952 | D3S953 | D3S954 | D3S955 | D3S956 | D3S957 | D3S958 | D3S959 | D3S960 | D3S961 | D3S962 | D3S963 | D3S964 | D3S965 | D3S966 | D3S967 | D3S968 | D3S969 | D3S970 | D3S971 | D3S972 | D3S973 | D3S974 | D3S975 | D3S976 | D3S977 | D3S978 | D3S979 | D3S980 | D3S981 | D3S982 | D3S983 | D3S984 | D3S985 | D3S986 | D3S987 | D3S988 | D3S989 | D3S990 | D3S991 | D3S992 | D3S993 | D3S994 | D3S995 | D3S996 | D3S997 | D3S998 | D3S999 | D3S1000 | D3S1001 | D3S1002 | D3S1003 | D3S1004 | D3S1005 | D3S1006 | D3S1007 | D3S1008 | D3S1009 | D3S1010 | D3S1011 | D3S1012 | D3S1013 | D3S1014 | D3S1015 | D3S1016 | D3S1017 | D3S1018 | D3S1019 | D3S1020 | D3S1021 | D3S1022 | D3S1023 | D3S1024 | D3S1025 | D3S1026 | D3S1027 | D3S1028 | D3S1029 | D3S1030 | D3S1031 | D3S1032 | D3S1033 | D3S1034 | D3S1035 | D3S1036 | D3S1037 | D3S1038 | D3S1039 | D3S1040 | D3S1041 | D3S1042 | D3S1043 | D3S1044 | D3S1045 | D3S1046 | D3S1047 | D3S1048 | D3S1049 | D3S1 |
|--------------|-----|-----|-----|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------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FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

| | | |
|--------------------------------------|---|-------------------|
| Usage of the “Y-Mix Database Filter” | | Document ID: 5787 |
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1.4 In the center of the screen, ensure the following options are selected (see red arrows in diagram below):

1.4.1 Where it says: “Limit database to samples with all the loci entered above”, choose **YES**

1.4.2 Where it says: “Treat this profile as a single source sample”, choose **NO**

1.4.3 The desired Upper Confidence Interval (Desired UCI) should be set to **95%**.

1.4.4 Where it says: Use $(x+1) / (N+1)$, choose **NO**

Y-Mix Database Filter 3.1
BETA 041017sp.m

Database Source: www.usystrdatabase.org
Release 4.2 (Feb. 18, 2017)

Upper Confidence Interval:
Clopper and Pearson approach
(Biometrika 1934)

Limit database to samples with all the loci entered above? **Yes**

Treat this profile as a single source sample? **No**

Desired UCI: **95.0%**

Use $(x+1) / (N+1)$? **No**

Compare the profile to the database.

This is a BETA version. Filter spreadsheet has been performed to results, there is no accuracy. Prior to its use, users must perform their own validation independently on a case basis. The author assumes no responsibility for performance. I am responsible for my own validation.

| | DYS 38751 | DYS 19 | DYS 385 | DYS 389I | DYS 389II | DYS 330 | DYS 331 | DYS 332 | DYS 333 | DYS 437 | DYS 438 | DYS 439 | DYS 443 | DYS 448 | DYS 449 | DYS 456 | DYS 458 | DYS 460 | DYS 481 | DYS 518 | DYS 533 | DYS 543 | DYS 570 | DYS 576 | DYS 627 | DYS 635 | DYS 643 | YGATA H4 |
|-------------------|-----------|--------|---------|----------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Allele 1 | 32 | | | 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 2 | 34 | | | 12 | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Allele 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New Variant: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Observed Alleles: | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 33 | 7 | <7 | 0 | 0 | 14 | 0 | 0 | |
| | 32 | 6 | 7 | 9 | 24 | 16 | <6 | 7 | 9 | 11.1 | 7 | <8 | 14 | 25 | 11 | 10 | 10 | 13 | 33.2 | 6 | 7 | 11 | 8 | 14.2 | 12 | 7 | 6 | |
| | 33 | <9 | 8 | 10 | 25 | 19 | 6 | 8 | 10 | 12 | <8 | 8 | 15 | 26 | 12 | 11 | 11 | 16 | 34 | 9 | 9 | 12 | 11 | 15 | 17 | 8 | <8 | |
| | 34 | 10 | 9 | 11 | 26 | 20 | <7 | 9 | 11 | <13 | 8 | 9 | <16 | 27 | <13 | 12 | 12 | 17 | 34.2 | 10 | 10 | 13 | 12 | 16 | 18 | 9 | 8 | |
| | 35 | 11 | 10 | 12 | 27 | 20.1 | 7 | 10 | 12 | 13 | 8.2 | 10 | 16 | 28 | 13 | 13 | 13 | 18 | 35 | 10.1 | 11 | 14 | 13 | 17 | <19 | 10 | 9 | |
| | 36 | 12 | 10.2 | 13 | 28 | 21 | 8 | 10.2 | 13 | 14 | 9 | 10.1 | 16.2 | 29 | 14 | <14 | 13 | 36 | 11 | 11.1 | 15 | 14 | 18 | 13 | 11 | 10 | | |
| | 37 | 13 | 11 | 14 | 28.5 | 21.1 | 9 | 11 | 14 | 14.3 | 10 | 11 | <17 | 30 | 14.3 | 14 | 20 | 37 | 12 | 12 | 16 | 15 | 18.2 | <20 | 11 | 11 | | |
| | 37.5 | 13.2 | 11.2 | 15 | 29 | 22 | 10 | 11.1 | 15 | 15 | 11 | 12 | 17 | 31 | 15 | 14.1 | 21 | 37.1 | 13 | 13 | 17 | 16 | 19 | 20 | 12 | 12 | | |
| | 38 | 14 | 11.5 | 16 | 30 | 23 | 11 | 12 | 16 | 16 | 12 | 13 | 17.2 | 32 | 16 | 14.2 | 22 | 37.2 | 14 | 14 | 17.3 | 17 | 19.2 | 21 | 13 | 13 | | |
| | 39 | 14.1 | 12 | | 31 | 24 | 12 | 13 | 17 | 17 | 13 | 14 | 17.4 | 33 | 17 | 15 | 23 | 38 | 15 | 15 | 18 | 17.2 | 20 | 21.3 | 14 | >13 | | |

1.5 Click on the macro button “Compare the profile to the database.” (see green arrow below). This will filter the database, leaving only those haplotypes that would be included as possible contributors to your evidence.

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

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|--------------------------------------|---|-------------------|
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| DATE EFFECTIVE 03/19/2018 | APPROVED BY Nuclear DNA Technical Leader | PAGE 5 OF 5 |

- 1.6 Summary of results. The website reports the number of times the haplotype was observed in the database (x), the database size (N), sample frequencies (x/N), and the upper bound of the 95% confidence interval (UCIs). See screenshot below.

Y-Mix Database Filter 3.1
BETA 04/01/17ppm

| Database | x | N | x/N | 1 in... | 95% UCI | 1 in... |
|------------------|----------|--------------|----------|---------|--------------------|------------|
| African American | 0 | 580 | 0 | | 0.005335239 | 187 |
| Asian | 0 | 332 | 0 | | 0.008982792 | 111 |
| Caucasian | 0 | 576 | 0 | | 0.005187423 | 193 |
| Hispanic | 0 | 387 | 0 | | 0.007711027 | 130 |
| Native American | 0 | 239 | 0 | | 0.012456216 | 80 |
| Combined | 0 | 2,094 | 0 | | 0.007429804 | 699 |

Limit database to samples with all the loci entered above? Yes No
Treat this profile as a single source sample? Yes No
Desired UCI Use (x+1)/(N+1)? Yes No

- 1.7 Print the screen by selecting “Print” from the printer menu at the top of the page and selecting a printer.
- 1.8 Verify on the printout that the Y-haplotype alleles were correctly entered into the website.
- 1.9 Report the 95% upper-bound confidence statistic from the African American, Asian, Caucasian, and Hispanic ethnic groups, and round down to three significant figures (the “1 in...” column furthest to the right).
- 1.10 If both autosomal and Y-STRs are typed, the results are reported separately.

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