

Complex Patterns of Cannabinoid Alkyl Side-Chain Inheritance in *Cannabis*

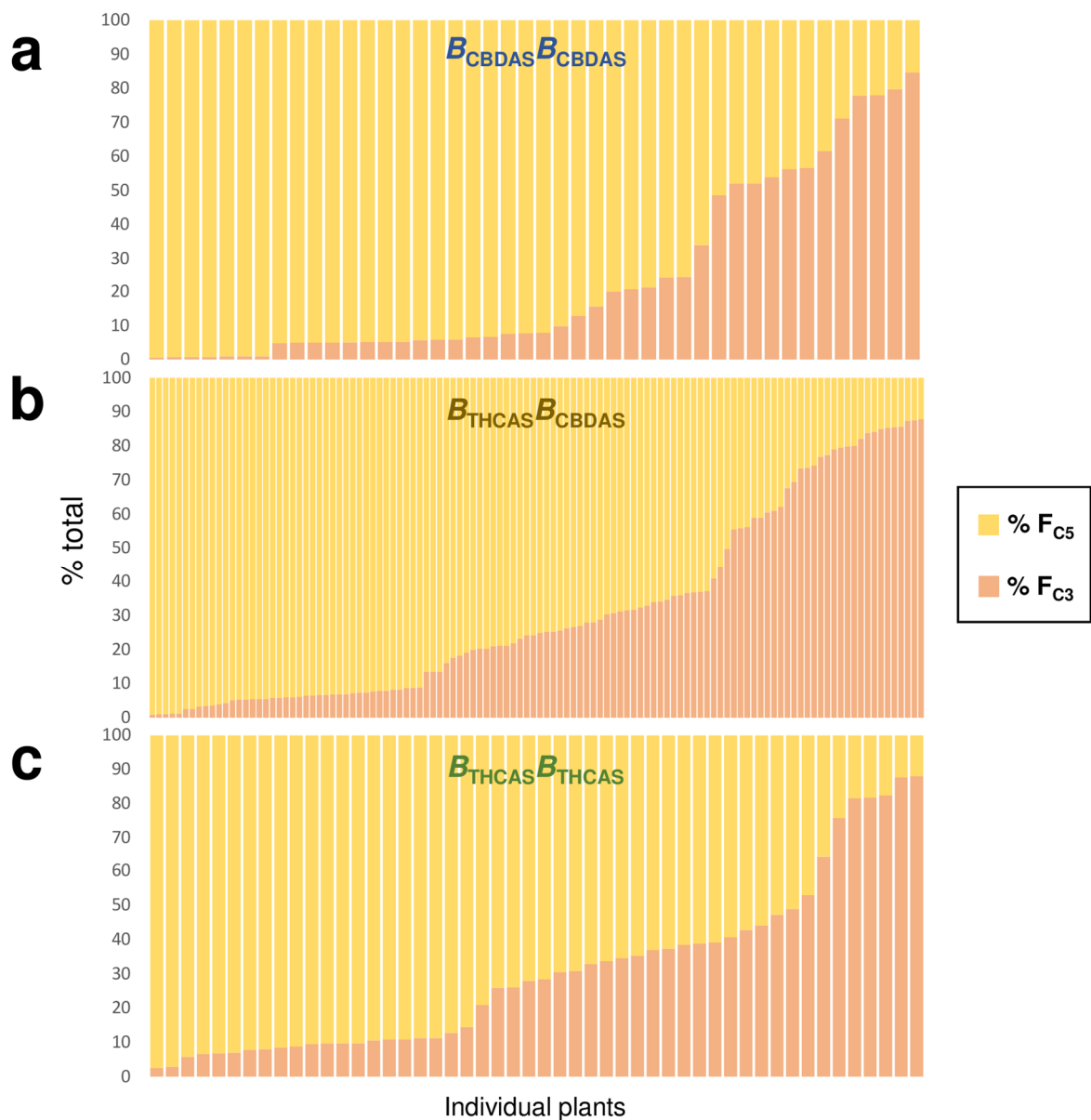
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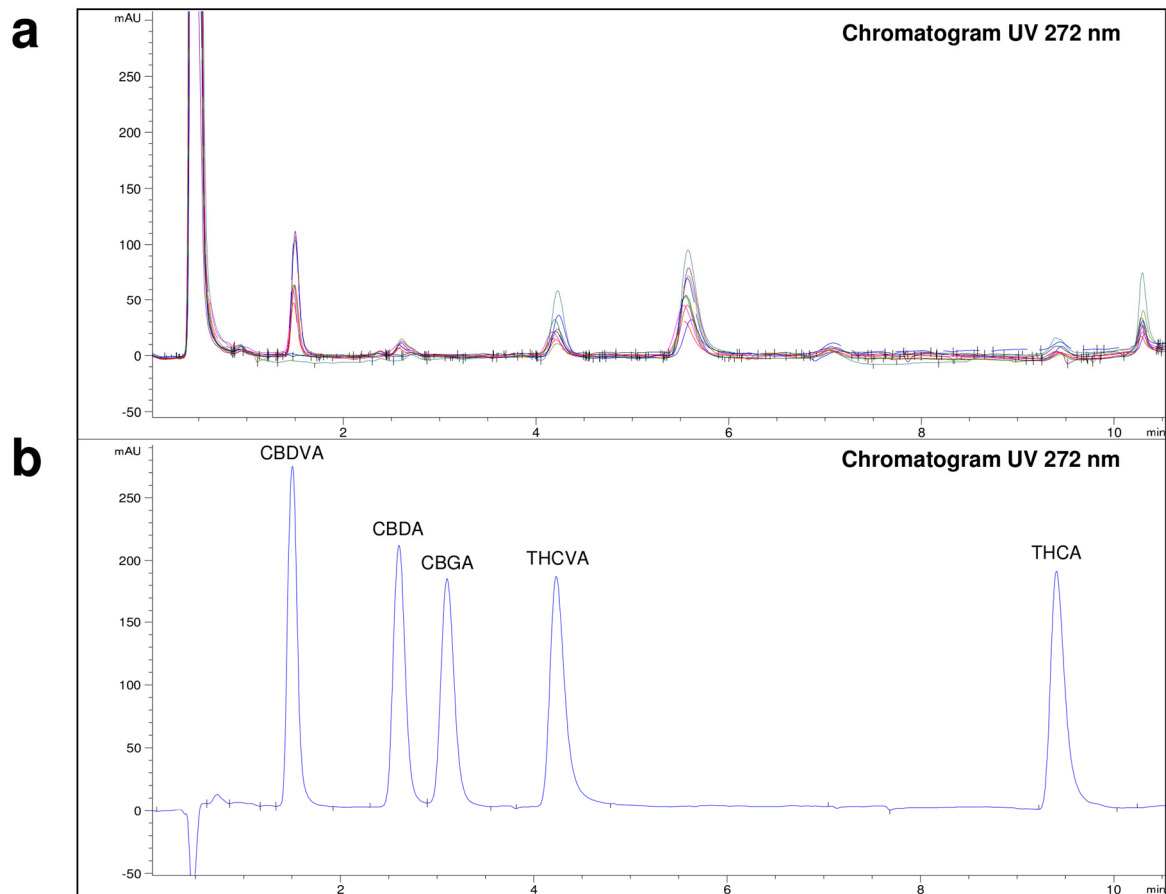
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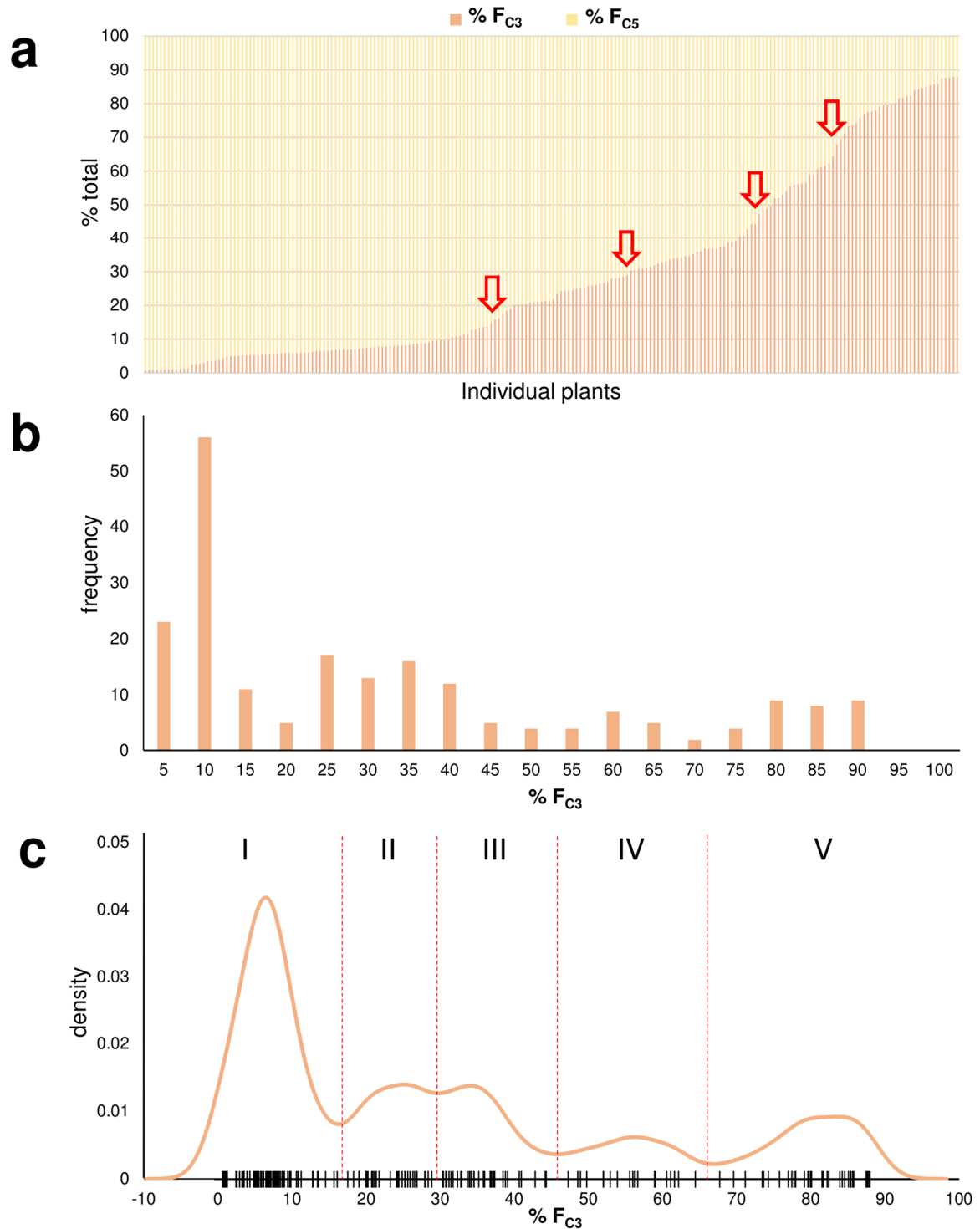
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Supplementary Figure S1. Alkyl cannabinoid inheritance patterns of locus *B* genotypes. (a) Bar graph of $B_{CBDAS}B_{CBDAS}$ alkyl cannabinoid chemotypes. (b) Bar graph of $B_{THCAS}B_{CBDAS}$ alkyl cannabinoid chemotypes. (c) Bar graph of $B_{THCAS}B_{THCAS}$ alkyl cannabinoid chemotypes. Individual plant chemotypes on the x-axis ordered from low to high F_{C3}. C₅-alkyl cannabinoid fraction (F_{C5}); C₃-alkyl cannabinoid fraction (F_{C3}); locus *B* genotypes: homozygote *THCAS* ($B_{THCAS}B_{THCAS}$), homozygote *CBDAS* ($B_{CBDAS}B_{CBDAS}$), heterozygote *THCAS CBDAS* ($B_{THCAS}B_{CBDAS}$)



Supplementary Figure S2. Chromatograms showing C₃ and C₅ alkyl cannabinoids. (a) Overlay of exemplar chromatograms from F₂ progeny exhibiting C₃-alkyl cannabinoid maxima chemotypes. Appreciable levels of CBGA not present in the profile of CBDVA/THCVA predominant chemotypes. (b) Chromatogram of alkyl cannabinoid analytical standards. Cannabidiolic acid (CBDA); cannabidivarinic acid (CBDVA); cannabigerolic acid (CBGA); delta(9)-tetrahydrocannabinolic acid (THCA); delta(9)-tetrahydrocannabivarinic acid (THCVA)



Supplementary Figure S3. Inheritance patterns of alkyl cannabinoid composition. (a) Bar graph of alkyl cannabinoid chemotypes of individual plants showing stepwise increases in F_{C3} value. Individual plant chemotypes on the x-axis ordered from low to high F_{C3} . (b) Histogram of alkyl cannabinoid chemotypes showing discrete F_{C3} frequency distributions. (c) Kernel density estimation of F_{C3} values objectively demarcating data points in to five chemotypic categories. *Black lines* indicate individual plant F_{C3} values. C_5 -alkyl cannabinoid fraction (F_{C5}); C_3 -alkyl cannabinoid fraction (F_{C3})