



Figure S1. Spectra of ζ -carotene isomers identified in chromatograms of Pinalate carotenoid extracts. Z1, 9,15,9'-tri-*cis*- ζ -carotene; Z2, ζ -carotene isomer; Z3, ζ -carotene isomer; Z4, 9,9'-di-*cis*- ζ -carotene; Z5, ζ -carotene isomer; Z6, ζ -carotene isomer.