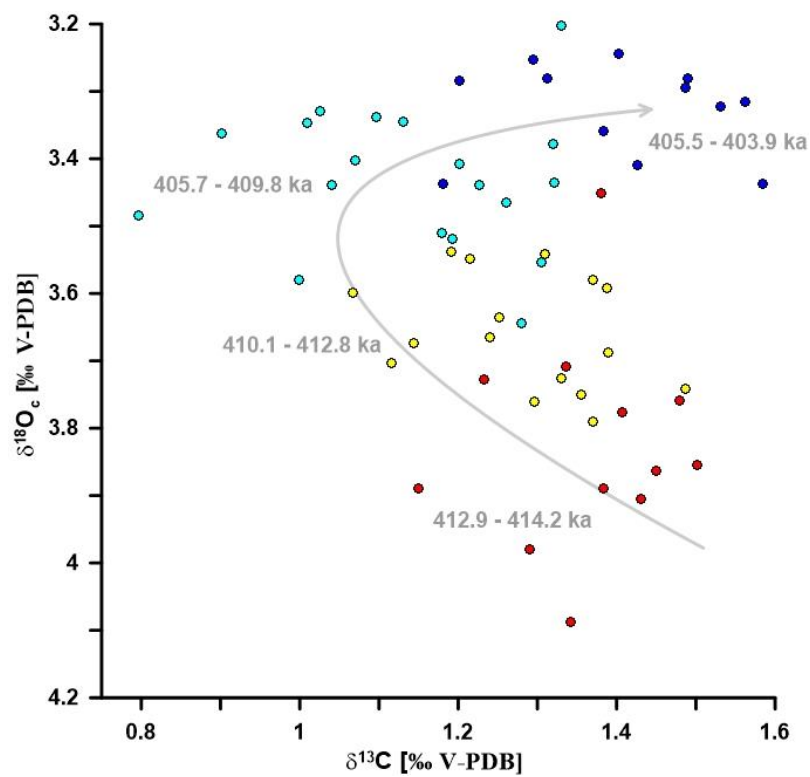
Supplement Figure S1 | Goodness-of-fit assessment for non-parametric EMA. Left: Linear correlations between endmembers and Right: Angular deviation (θ) parameters as a function of the number of fitted end members. Both indicate that three end members are sufficient to describe this data set.

Supplement Figure S2 | $\delta^{18}O_c$ versus $\delta^{13}C$ cross plots for the dataset. Red symbols represent the interval 412.9-414.2 ka, yellow symbols represent the interval 410.1-412.8 ka, light blue symbols represent the interval 405.7-409.8 ka, and dark blue symbols represent the interval 403.9-405.5 ka.