

**Figure S4. Functional analysis of Citrus Z-ISO** in *E.coli* pPROLYCOPENE strain. Carotenes composition in extracts from *E. coli* with pPROLYCOPENE plasmid and Citrus Z-ISO from WT or Pinalate (mutant) P5 and P6 cDNAs. *E. coli* with pPROLYCOPENE alone was used as control. Carotenoid analysis in *E. coli* cells was determined by HPLC-PAD as described in Material and Methods section.