

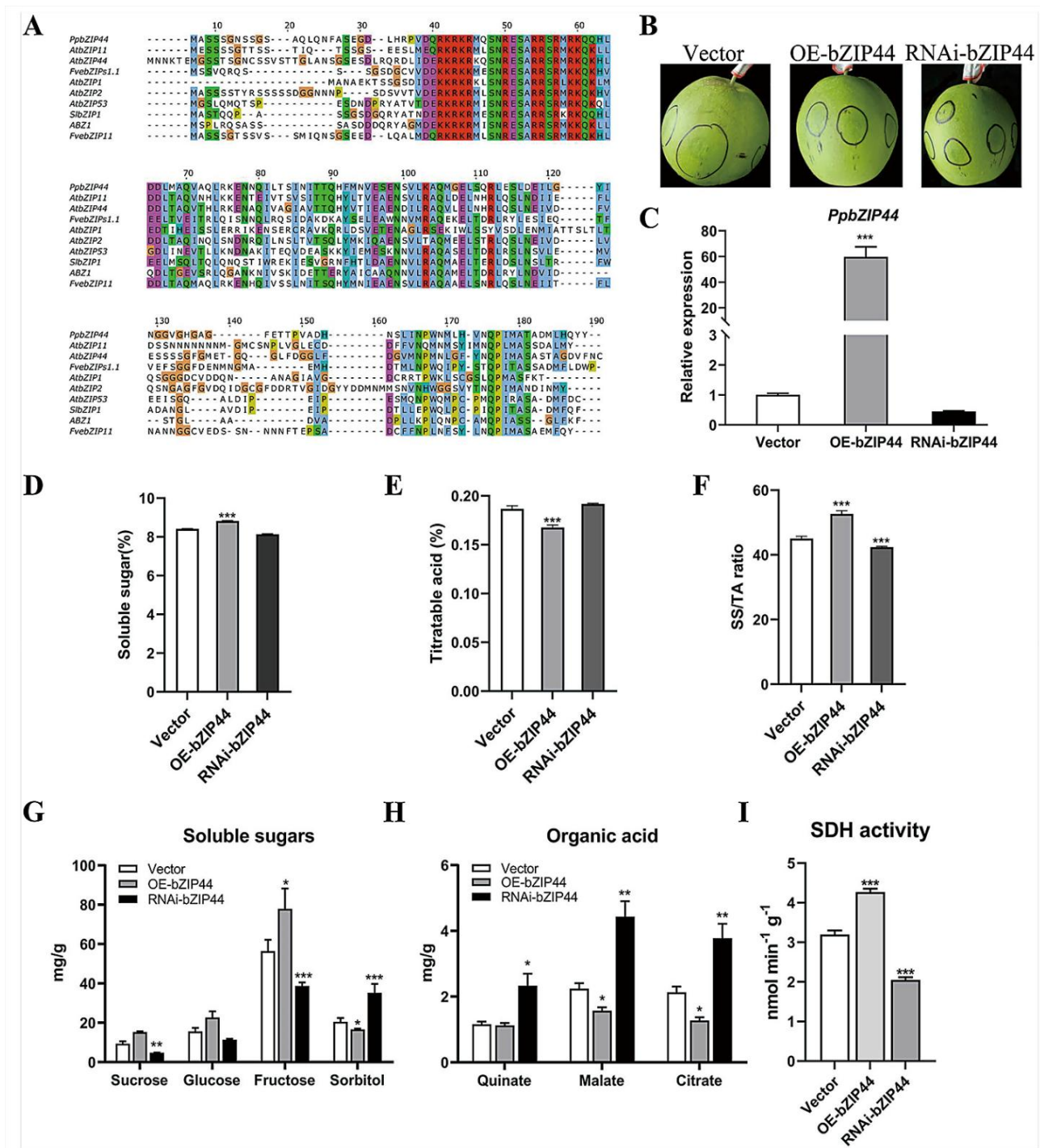


Figure 3 Transient transformation of *PpbZIP44* in pear fruits. A. Multiple protein sequence alignments of *PpbZIP44* and other S1-bZIP proteins in different species. B. Transient assays in 'Sucu 1' pear using overexpression (OE-) or RNAi (RNAi) or empty vector (Vector) of *PpbZIP44*. C. The expression levels of *PpbZIP44* in the fleshy tissue around the infiltration sites of transformed pear fruits using qRT-PCR. The content of total SS (D) and TA (E), SS/TA ratio (F), individual soluble sugars contents (G), individual organic acids contents (H), and SDH activity (I) in transformed pear fruits and control pear fruits. Bars represented the mean value $\pm$ SE ($n \geq 3$). The asterisks indicated values that were determined by the Dunnett t test to significantly differ from their empty vector or WT control (* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$) (Adopted from Wang et al., 2023)

8 Conclusions and Perspectives

When talking about pear quality, it's hard not to bring up nitrogen, potassium, and different trace elements. These nutrients pretty much decide the fruit's shape, size, and even how it tastes. Sugar doesn't come from just one