

**Online Supporting Information S2d.** A demonstration to show the power of **iLoc-Plant** in identifying the multiple locations of proteins via a head-to-head comparison between the results predicted by **iLoc-Plant** and those by **TargetP** (Emanuelsson et al. J. Mol. Biol., 2000, 300, 1005-1016) on the 17 multiple-location proteins in the [Online Supporting Information S2c](#). For facilitating comparison, the corresponding experimental subcellular locations as annotated in Swiss-Prot databank (Release 2011\_06 of 31-May-11) are also given. As shown from the results below, all the 17 proteins were perfectly predicted by **iLoc-Plant** for their multiple-location sites without any false positive and false negative. This kind of capacity of **iLoc-Plant** in dealing with multiple-location proteins is far beyond the reach of **TargetP**.

Protein access number	<b>iLoc-Plant</b>	<b>TargetP</b>	Experimental result annotated in Swiss-Prot database
O64645	Cytoplasm; Nuclear	Mitochondrion	Cytoplasm; Nuclear
O82794	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
P68395	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
P93002	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q7XTE8	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q6ZKC0	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q06967	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q94BT6	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q9CA64	Cytoplasm; Nuclear	Chloroplast	Cytoplasm; Nuclear
Q9C9M7	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q9SUQ2	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q9SUE3	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q9M374	Cytoplasm; Nuclear	Mitochondrion	Cytoplasm; Nuclear
Q0IMG9	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q9FLP6	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear
Q9LJZ5	Cytoplasm; Nuclear	Chloroplast	Cytoplasm; Nuclear
Q8S8I2	Cytoplasm; Nuclear	Other	Cytoplasm; Nuclear