

Online Supporting Information S2a. The degenerate testing dataset used for a head-to-head comparison between **TargetP** (Emanuelsson et al. *J. Mol. Biol.*, 2000, 300, 1005-1016) and **iLoc-Plant** of this paper. The dataset contains 100 single-location proteins classified into the following 2 subcellular locations: (1) chloroplast, and (2) mitochondrion, with each containing 50 protein sequences that were randomly picked from Swiss-Prot database (Release 2011_06 of 31-May-11). To avoid bias, none of the proteins included here occurs in the training dataset of **TargetP**, nor in the training dataset of **iLoc-Plant**. See the text of the paper for further explanation

(1) 50 Chloroplast proteins

>A6BM42

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>P43225

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>P48710

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>P05488

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>P46773

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