

## Supplementary material:

**Table 1:** Subcellular localization of EMB564 protein predicted by five predictors

Predictor	Predicted locations	Selected parameters	Prediction website
Plant-mPLoc	Nucleus	Default	<a href="http://www.csbio.sjtu.edu.cn/bioinf/plant-multi">http://www.csbio.sjtu.edu.cn/bioinf/plant-multi</a>
CELLO <sup>a</sup>	Nucl (2.777), Mito (0.874), Cyto (0.689), Extra (0.260), Chlo (0.241), PM (0.051), Pero (0.028), ER (0.021), Vac (0.020), Lyso (0.014), Golgi (0.013), Cytoskeletal (0.012)	Eukaryotes	<a href="http://cello.life.nctu.edu.tw">http://cello.life.nctu.edu.tw</a>
WoLF PSORT <sup>b</sup>	Nucl (9.0), Chlo (2.0), Mito (1.0), plastid (1.0)	Plant option	<a href="http://wolfsort.org">http://wolfsort.org</a>
Predotar <sup>c</sup>	Mito (0.01), plastid (0.00), ER (0.00), elsewhere (0.99)	Plant sequences	<a href="http://urgi.versailles.inra.fr/predotar">http://urgi.versailles.inra.fr/predotar</a>
TargetP <sup>d</sup>	cTP (4), mTP (5), SP (5), other (2)	Plant option No cutoff set	<a href="http://www.cbs.dtu.dk/services/TargetP">http://www.cbs.dtu.dk/services/TargetP</a>

Notes: a, output results in SVM score; b, 14 nearest neighbors are used for the prediction, where 9 indicates nucleus; c, output results is a probability estimated as to whether the sequence contains a mitochondrial, plastid or ER targeting sequence; d, output results in reliability class from 1 to 5, where 5 indicates the weakest prediction. Chlo = chloroplast; Cyto = cytoplasmic; Extra = extracellular; Lyso = lysosomal; Mito = mitochondria; Nucl = Nuclear; Pero = peroxisomal; PM = plasma membrane; SP = secreted proteins; Vac = vacuole.