

Table S1

Identifier	Similarity to CYP86A33_RNAi fragment	EST identifier in TIGR microarray	Expression in tuber periderm <sup>1</sup>	Best BlastX in <i>Arabidopsis</i> TAIR8 protein		
				Gene	Identifier	Similarity to potato EST
CYP86A33 (TC179730)	—	STMIC57	high expression and induced at tuber onset	CYP86A1	At5g58860	86%
TC175254	64%	STMIJ46 / STMJE27	high and constitutive expression during tuberization	CYP86A2	At4g00360	83%
BQ514437	64%	STMIL90	high expression and induced at tuber onset	CYP96A9	At4g39480	77%
BQ518886	56%	STMJM56	lower expression	CYP704A2	At2g45510	84%
TC170902	56%	STMHA12	lower expression	CYP704A2	At2g45510	80%
CK863597	57%	—	—	CYP704A2	At2g45510	62%
CN212467	57%	—	—	CYP704A2	At2g45510	72%
CV497926	58%	—	—	CYP704A2	At2g45510	73%
CX161174	55%	—	—	oxygen-binding; similar to CYP704A2	At1g69500	87%
TC192746	53%	—	—	CYP704A2	At2g45510	70%

<sup>1</sup> Data extracted from microarray experiments in TIGR Solanace Resource: expression in tuber skin (113\_Robin) and induction during tuberization (049\_Hannapel and 087\_Stupar)

**Table S1.** List of the potato ESTs most homologous to *CYP86A33*-RNAi fragment obtained by a BLASTN in the TIGR potato database. For each EST, TC/EST identifier and degree of similarity to *CYP86A33*-RNAi fragment are given. For those ESTs printed in TIGR potato microarray, the microarray identifier and its transcript accumulation levels in tuber periderm and gene induction during tuber onset are reported. Results of the best BlastX in *Arabidopsis* TAIR8 protein database are also given.