Supplemental Table S3: List of the *Arabidopsis* sequences from the pistil data set described at the article of Tung et al. (2005), for which there are 'true homologous' sequences in the TOBEST database.

Query	TOBEST ID	Gene Description (Function or Comment)
At4g11820	C001F12	HMGS, MVA1, BAP1 | BAP1 (hydroxymethylglutaryl-Co synthase)
At4g27590	C016D02	copper-binding protein-related
At2g02850[a,c]	C017H10	ARPN (PLANTACYANIN); copper ion binding
At3g24100	C022F07	similar to four F5 protein-related / 4F5 protein-related [*Arabidopsis thaliana*]
At1g21750[a]	C027A09	ATPDIL1-1 (PDI-LIKE 1-1); protein disulfide isomerase
At2g45290	C035E09	transketolase, putative
At5g40350	C089F04	AtMYB24, MYB24 (myb domain protein 24); DNA binding / transcription factor
At5g61790[a]	C095E10	calnexin 1 (CNX1)
At5g25350	C102G12	EBF2 (EIN3-BINDING F BOX PROTEIN 2)
At4g19810[b]	C106G05	glycosyl hydrolase family 18 protein, putative chitinase
At1g12230	C106H10	transaldolase, putative
At4g00360[a]	C107D01	ATT1, CYP86A2 (ABERRANT INDUCTION OF TYPE THREE GENES 1); oxygen binding; putative cytochrome P450
At5g43150	C121A07	similar to hypothetical protein MtrDRAFT_AC141109g4v1 [*Medicago truncatula*]
At1g63220	C131F04	C2 domain-containing protein
At4g21620[a]	S005G10	glycine-rich protein
At1g14360[a]	S010A07	ATUTR3/UTR3 (UDP-GALACTOSE TRANSPORTER 3); pyrimidine nucleotide sugar transporter
At1g04980	S015B02	ATPDIL2-2 (PDI-LIKE 2-2); thiol-disulfide exchange intermediate
At4g31860	S018D05	protein phosphatase 2C, putative / PP2C, putative
At4g38770[a]	S022C10	ATPRP4, PRP4 (PROLINE-RICH PROTEIN 4)
At3g15820	S058B08	phosphatidic acid phosphatase-related / PAP2-related
At5g15530	S061G01	BCCP2, CAC1-B | BCCP2 (biotin carboxyl carrier protein 2); biotin binding
At1g31812	S073D03	ACBP (ACYL-COA-BINDING PROTEIN); acyl-CoA binding
At5g64510	S093G08	similar to ORF; able to induce HR-like lesions [*Nicotiana tabacum*]
At4g18910	S107B05	NIP1;2/NLM2 (NOD26-like intrinsic protein 1;2); water channel
At2g25110[a]	S121B12	SDF2 | MIR domain-containing protein; unknown protein
At2g17880	S122C03	DNAJ heat shock protein, putative
At5g57900	S130H05	SKIP1 (SKP1 INTERACTING PARTNER 1)
At3g14380	S132B08	integral membrane family protein

a. Papillar cell-specific genes predicted to encode secreted proteins (Table I from Tung et al., 2005)
b. Transmitting tract-specific genes predicted to encode secreted proteins (Table II from Tung et al., 2005)
c. Genes previously implicated in the pollen-pistil interactions of *Brassica*, *Arabidopsis* and lily (Table III from Tung et al., 2005)