

**Table S4.** Kegg-based metabolic pathway annotation for differentially expressed transcripts (DET) for pairwise comparisons between developmental stages of *Tuta absoluta* by Blast2Go.

Compared samples	Kegg Pathways	Total transcripts
Adults x Eggs	Galactose metabolism	7
	Starch and sucrose metabolism	7
	Biosynthesis of antibiotics	4
	Glyoxylate and dicarboxylate metabolism	4
	Arginine and proline metabolism	3
	Alanine, aspartate and glutamate metabolism	3
	Fatty acid biosynthesis	3
	Nitrogen metabolism	3
	Glycolysis / Gluconeogenesis	3
	Pyruvate metabolism	2
	Tyrosine metabolism	2
	Tryptophan metabolism	2
Eggs x 1 <sup>st</sup> stage larvae	Steroid hormone biosynthesis	2
	Tryptophan metabolism	2
Eggs x 2 <sup>nd</sup> stage larvae	Drug metabolism - cytochrome P450	3
	Metabolism of xenobiotics by cytochrome P450	3
	Glutathione metabolism	3
	Tryptophan metabolism	3
	Steroid hormone biosynthesis	2
	Fatty acid biosynthesis	2
	Glycine, serine and threonine metabolism	2
Eggs x 3 <sup>rd</sup> stage larvae	Starch and sucrose metabolism	6
	Drug metabolism - cytochrome P450	5
	Metabolism of xenobiotics by cytochrome P450	5
	Glutathione metabolism	5
	Galactose metabolism	4
	Biosynthesis of antibiotics	3
	Tryptophan metabolism	3
	Ubiquinone and other terpenoid-quinone biosynthesis	2
	Phenylalanine metabolism	2
	Steroid hormone biosynthesis	2
	Fatty acid biosynthesis	2
	Glycine, serine and threonine metabolism	2
	Glyoxylate and dicarboxylate metabolism	2
	Tyrosine metabolism	2
Eggs x 4 <sup>th</sup> stage larvae	Fatty acid biosynthesis	7
	Starch and sucrose metabolism	6
	Galactose metabolism	4
	Drug metabolism - cytochrome P450	4
	Metabolism of xenobiotics by cytochrome P450	4
	Biosynthesis of antibiotics	4
	Glutathione metabolism	4
	Glyoxylate and dicarboxylate metabolism	4

	Arginine and proline metabolism	3
	Alanine, aspartate and glutamate metabolism	3
	Pyruvate metabolism	3
	Nitrogen metabolism	3
	Glycolysis / Gluconeogenesis	3
	Tryptophan metabolism	3
	Steroid hormone biosynthesis	2
	Purine metabolism	2
	Glycine, serine and threonine metabolism	2
<b>Adults x 1<sup>st</sup> stage larvae</b>	Nitrogen metabolism	3
	Arginine and proline metabolism	3
	Alanine, aspartate and glutamate metabolism	3
	Starch and sucrose metabolism	3
	Galactose metabolism	3
	Glyoxylate and dicarboxylate metabolism	3
	Steroid hormone biosynthesis	2
	Fatty acid biosynthesis	2
<b>Adults x 2<sup>nd</sup> stage larvae</b>	Starch and sucrose metabolism	6
	Galactose metabolism	6
	Nitrogen metabolism	2
	Arginine and proline metabolism	2
	Alanine, aspartate and glutamate metabolism	2
	Steroid hormone biosynthesis	2
	Glyoxylate and dicarboxylate metabolism	2
<b>Adults x 3<sup>rd</sup> stage larvae</b>	Starch and sucrose metabolism	5
	Galactose metabolism	5
	Steroid hormone biosynthesis	2
<b>Adults x 4<sup>th</sup> stage larvae</b>	Fatty acid biosynthesis	5
	Starch and sucrose metabolism	2
	Steroid hormone biosynthesis	2
	Galactose metabolism	2