

## **Supporting Information for**

**Genome-Wide Identification of the Genes of the Odorant-Binding Protein Family  
Reveal Their Role in the Olfactory Response of the Tomato Leaf Miner (*Tuta  
absoluta*) to a Repellent Plant**

**Table S1. The sequence IDs for each OBP used for phylogenetic analysis.**

<b>Gene Name</b>	<b>Database</b>	<b>Species</b>
BAH36761.1	NCBI Protein	<i>Bombyx mori</i>
BAH79159.1	NCBI Protein	<i>Bombyx mori</i>
BAH79158.1	NCBI Protein	<i>Bombyx mori</i>
BAH36763.1	NCBI Protein	<i>Bombyx mori</i>
BAH36762.1	NCBI Protein	<i>Bombyx mori</i>
BAH36760.1	NCBI Protein	<i>Bombyx mori</i>
BAI22690.1	NCBI Protein	<i>Bombyx mori</i>
BAI22689.1	NCBI Protein	<i>Bombyx mori</i>
NP_001140189.1	NCBI Protein	<i>Bombyx mori</i>
NP_001140187.1	NCBI Protein	<i>Bombyx mori</i>
NP_001140186.1	NCBI Protein	<i>Bombyx mori</i>
NP_001140190.1	NCBI Protein	<i>Bombyx mori</i>
NP_001037496.1	NCBI Protein	<i>Bombyx mori</i>
XP_012547441.1	NCBI Protein	<i>Bombyx mori</i>
XP_037868365.1	NCBI Protein	<i>Bombyx mori</i>
XP_037867017.1	NCBI Protein	<i>Bombyx mori</i>
XP_037873054.1	NCBI Protein	<i>Bombyx mori</i>
XP_004928236.2	NCBI Protein	<i>Bombyx mori</i>
XP_004932340.1	NCBI Protein	<i>Bombyx mori</i>
XP_004931990.1	NCBI Protein	<i>Bombyx mori</i>
Obp83a	Flybase	<i>Drosophila melanogaster</i>
Obp19d	Flybase	<i>Drosophila melanogaster</i>
Obp56c	Flybase	<i>Drosophila melanogaster</i>
Obp44a	Flybase	<i>Drosophila melanogaster</i>
Obp19c	Flybase	<i>Drosophila melanogaster</i>
Obp28a	Flybase	<i>Drosophila melanogaster</i>
Obp73a	Flybase	<i>Drosophila melanogaster</i>
Obp56i	Flybase	<i>Drosophila melanogaster</i>
Obp47b	Flybase	<i>Drosophila melanogaster</i>
Obp56f	Flybase	<i>Drosophila melanogaster</i>
Obp56b	Flybase	<i>Drosophila melanogaster</i>
Obp59a	Flybase	<i>Drosophila melanogaster</i>
Obp46a	Flybase	<i>Drosophila melanogaster</i>
Obp83b	Flybase	<i>Drosophila melanogaster</i>
Obp85a	Flybase	<i>Drosophila melanogaster</i>
Obp19b	Flybase	<i>Drosophila melanogaster</i>
Obp56g	Flybase	<i>Drosophila melanogaster</i>
Obp58d	Flybase	<i>Drosophila melanogaster</i>
Obp99b	Flybase	<i>Drosophila melanogaster</i>
Obp83g	Flybase	<i>Drosophila melanogaster</i>
Obp57a	Flybase	<i>Drosophila melanogaster</i>
Obp18a	Flybase	<i>Drosophila melanogaster</i>

Obp56d	Flybase	<i>Drosophila melanogaster</i>
Obp49a	Flybase	<i>Drosophila melanogaster</i>
Obp99a	Flybase	<i>Drosophila melanogaster</i>
Obp8a	Flybase	<i>Drosophila melanogaster</i>
Obp57b	Flybase	<i>Drosophila melanogaster</i>
Obp57c	Flybase	<i>Drosophila melanogaster</i>
Obp50a	Flybase	<i>Drosophila melanogaster</i>
Obp93a	Flybase	<i>Drosophila melanogaster</i>
Obp56a	Flybase	<i>Drosophila melanogaster</i>
Obp99d	Flybase	<i>Drosophila melanogaster</i>
Obp50d	Flybase	<i>Drosophila melanogaster</i>
Obp58b	Flybase	<i>Drosophila melanogaster</i>
Obp50e	Flybase	<i>Drosophila melanogaster</i>
Obp83ef	Flybase	<i>Drosophila melanogaster</i>
Obp57e	Flybase	<i>Drosophila melanogaster</i>
Obp56h	Flybase	<i>Drosophila melanogaster</i>
Obp56e	Flybase	<i>Drosophila melanogaster</i>
Obp99c	Flybase	<i>Drosophila melanogaster</i>
Obp83cd	Flybase	<i>Drosophila melanogaster</i>
Obp57d	Flybase	<i>Drosophila melanogaster</i>
Obp19a	Flybase	<i>Drosophila melanogaster</i>
Obp84a	Flybase	<i>Drosophila melanogaster</i>
Obp47a	Flybase	<i>Drosophila melanogaster</i>
Obp69a	Flybase	<i>Drosophila melanogaster</i>
Obp51a	Flybase	<i>Drosophila melanogaster</i>
Obp50c	Flybase	<i>Drosophila melanogaster</i>
Obp50b	Flybase	<i>Drosophila melanogaster</i>
Obp22a	Flybase	<i>Drosophila melanogaster</i>
Obp58c	Flybase	<i>Drosophila melanogaster</i>
AEX07279.1	NCBI Protein	<i>Helicoverpa armigera</i>
AEX07278.1	NCBI Protein	<i>Helicoverpa armigera</i>
XP_021200198.2	NCBI Protein	<i>Helicoverpa armigera</i>
AEJ90553.1	NCBI Protein	<i>Helicoverpa armigera</i>
AFI57167.1	NCBI Protein	<i>Helicoverpa armigera</i>
AFI57166.1	NCBI Protein	<i>Helicoverpa armigera</i>
AFI57165.1	NCBI Protein	<i>Helicoverpa armigera</i>
XP_021192649.2	NCBI Protein	<i>Helicoverpa armigera</i>
XP_021192652.2	NCBI Protein	<i>Helicoverpa armigera</i>
XP_021192665.2	NCBI Protein	<i>Helicoverpa armigera</i>
XP_049700695.1	NCBI Protein	<i>Helicoverpa armigera</i>
XP_049700409.1	NCBI Protein	<i>Helicoverpa armigera</i>
XP_049700407.1	NCBI Protein	<i>Helicoverpa armigera</i>
XP_021193809.2	NCBI Protein	<i>Helicoverpa armigera</i>
XP_049700401.1	NCBI Protein	<i>Helicoverpa armigera</i>

XP_021188671.1	NCBI Protein	<i>Helicoverpa armigera</i>
XP_021187376.1	NCBI Protein	<i>Helicoverpa armigera</i>
ASA40067.1	NCBI Protein	<i>Helicoverpa armigera</i>
ASA40069.1	NCBI Protein	<i>Helicoverpa armigera</i>
AFM93773.1	NCBI Protein	<i>Helicoverpa armigera</i>
QNS26346.1	NCBI Protein	<i>Pieris rapae</i>
QNS26342.1	NCBI Protein	<i>Pieris rapae</i>
QNS26350.1	NCBI Protein	<i>Pieris rapae</i>
QNS26349.1	NCBI Protein	<i>Pieris rapae</i>
QNS26348.1	NCBI Protein	<i>Pieris rapae</i>
QNS26347.1	NCBI Protein	<i>Pieris rapae</i>
QNS26345.1	NCBI Protein	<i>Pieris rapae</i>
QNS26344.1	NCBI Protein	<i>Pieris rapae</i>
QNS26341.1	NCBI Protein	<i>Pieris rapae</i>
XP_022117197.2	NCBI Protein	<i>Pieris rapae</i>
XP_045484521.1	NCBI Protein	<i>Pieris rapae</i>
XP_022116967.2	NCBI Protein	<i>Pieris rapae</i>
XP_022127768.2	NCBI Protein	<i>Pieris rapae</i>
XP_022127769.2	NCBI Protein	<i>Pieris rapae</i>
XP_022128532.2	NCBI Protein	<i>Pieris rapae</i>
XP_022124122.2	NCBI Protein	<i>Pieris rapae</i>
XP_022118428.2	NCBI Protein	<i>Pieris rapae</i>
XP_022118416.2	NCBI Protein	<i>Pieris rapae</i>
XP_022117531.2	NCBI Protein	<i>Pieris rapae</i>
AAR28762.1	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035435754.2	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035435244.1	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035434733.1	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035442487.1	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_050550076.1	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035438141.2	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035438137.2	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035452971.2	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035428835.1	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035438151.1	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035437860.1	NCBI Protein	<i>Spodoptera frugiperda</i>
XP_035454669.1	NCBI Protein	<i>Spodoptera frugiperda</i>
UYA18666.1	NCBI Protein	<i>Spodoptera frugiperda</i>
UYA18664.1	NCBI Protein	<i>Spodoptera frugiperda</i>

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**Table S2. Primers used in the RT-qPCR analysis.**

Gene Name	Primer sequence (5'-3')
TabsOBP01-F	CGTCTACTGCGTGCTGCTCAAG
TabsOBP01-R	TCCATGCTAAGTCTTCAGGAGTGTCA
TabsOBP02-F	GGCGTGGGATGTTCTGAGAGTTAA
TabsOBP02-R	GTAGCATCTTATGTATCTCCAGCCAATCT
TabsOBP03-F	AGGACGGCAAGTTCAAGAAGGATG
TabsOBP03-R	TTGTTAGCAAGGCAAGAGTCAATCAG
TabsOBP04-F	GTCTATCCGTGCGAAGAGGTTGTT
TabsOBP04-R	TCTGTGCCGTAGTCAGCCTTGTA
TabsOBP05-F	CCGACCGACTGGTTGTGGACTT
TabsOBP05-R	TGAAGGCTGCGTTGAGGAAGGA
TabsOBP06-F	CTTCAGTTCATTCGGTGCTTGGAGA
TabsOBP06-R	CCTTACAGACAACGACGGAATTATCAGA
TabsOBP07-F	GGCAGCACAACTCCGAAGAA
TabsOBP07-R	CGCAGTACAAGATGAGAAATTAGCAGAC
TabsOBP08-F	GCATCAGCAGCAGCATTCTTCAA
TabsOBP08-R	GCAGCACTTCATTAAGCGGTATTCT
TabsOBP09-F	TCGCCGCTGATATACCGCCTTA
TabsOBP09-R	GACCTCTCGCCAACGCAATCTG
TabsOBP10-F	GTCTAGTGTTCTAGCGTTCGTTCTG
TabsOBP10-R	TTGCTTCCTTGAGGCATTCGTTGA
TabsOBP11-F	GGTGCGTACATACACAGCGGAAT
TabsOBP11-R	GCTTGAGTCTTACCAGTCTTCTTCTTACA
TabsOBP12-F	TGTTGCTCGTGACCATTCTTGTGA
TabsOBP12-R	GCATAAACTTCTTTGTTCGGTGTGTCT
TabsOBP13-F	GAAGCATTGGAGGAATCAGACAAGGA
TabsOBP13-R	TTCACCGTTGTTATCCGTCATCTCTG
TabsOBP14-F	GGCTGCTTGATGGCGAACCA
TabsOBP14-R	CATAGTGTGAGAAGAGTTGCGAACCT
TabsOBP15-F	TGAAGTCCTACCTCACCAACGATGA
TabsOBP15-R	GATTCCGATCCTGTTCCAGTTGTCTT
TabsOBP16-F	ACTCCGCCTTATGCCTGACCAA
TabsOBP16-R	ACTCATCCTCTCCATGCTGACACA
TabsOBP17-F	AACGCATACGGAGGCAAGGAGA
TabsOBP17-R	CCATCAGGCAGAACATATAGCACTTCA
TabsOBP18-F	GACGGAGGAACAAGCGAGAGGT
TabsOBP18-R	CCAGCACAGCCATGAAGTAGCC
TabsOBP19-F	GCTTCACTACACAATCGGCGAACA
TabsOBP19-R	GTCCACCATGCTCTCCAACACTTC
TabsOBP20-F	GGTCACCGAAGCCAATAACAATCCAA
TabsOBP20-R	TCTCCACTCTTACTAGAATTGCCATTACTG
TabsOBP21-F	TCCTGCTACTCTTCACCGTGCTT

TabsOBP21-R	CGTACTGGCGGACGATCTTAGC
TabsOBP22-F	CTTCAGGACAAGAGATTCATCCAGAGAC
TabsOBP22-R	ATGTAGCCGAGCGTGCGTTG
TabsOBP23-F	TTGTTCTGTATCGCTCTGGCTGTTG
TabsOBP23-R	TGACCTTCTGCTTGTTGACCTTGAC
TabsOBP24-F	GTTACCTCTGCCGACTTACTCACAA
TabsOBP24-R	GAAGACGCACTGGACATCGTTACA
TabsOBP25-F	CCTCCTGATATAACCGCCACAATGC
TabsOBP25-R	ATGCTGATGCCGCTGCCTTG
TabsOBP26-F	GGTGGTACTTGTCAACGCTGGAA
TabsOBP26-R	TGCCTCGCCTGGATTGTTATGC
TabsOBP27-F	GGCGGAGGTCCTTGATCCTATGA
TabsOBP27-R	GCTTCTTGTCCATATCCACGCTGAT
TabsOBP28-F	TTGGTTGGCATCGTTGGTTCTTCA
TabsOBP28-R	ACTGGCATGGCGGTCTGGAA
TabsOBP29-F	ACGGTGTCGCCAAGAATATAAGGAG
TabsOBP29-R	CAGGTGATGTCCATAGTCGAGTGAAG
TabsOBP30-F	CTATATTGCGGATCAGGAAGTCAGTAATCA
TabsOBP30-R	AAGAACCTATGCGTGTACTCGAAGATG
TabsOBP31-F	GCCTTGGGAAAGTTGAAGTTGAGAAAG
TabsOBP31-R	CAACCATATCTTGTCCGCCGATGT
TabsOBP32-F	TGGTAAGGAATGCTAATGGCGAGAAC
TabsOBP32-R	CTAACAGATAATACTTGGCTGGAGTGACA
TabsOBP33-F	GCACCGTTAGAGGCATCAGGAATT
TabsOBP33-R	CGTGGAACCTTG TAGTCCGTCTTCAA
TabsOBP34-F	GAGAAGATACACTATGTCATCAGCAACCT
TabsOBP34-R	GTAAGGAACGGCGTCGAAGAACTT
TabsOBP35-F	CAAGTACACATTAGATTATGGCGACAGAG
TabsOBP35-R	TTCCGAACTCCTCAGCGACAGT
TabsOBP36-F	TTCGTCCAAGAGCCTGTCATATCG
TabsOBP36-R	TCAATCAGCAAGGAAGAGTTCGTCAA
TabsOBP37-F	AGATGGAACATTCACTGGATTGGATACG
TabsOBP37-R	GTCACACTGTGCCTTACCGAACAA
TabsOBP38-F	TGGACGGCAGGCTATTGTTTCATC
TabsOBP38-R	TCACATCGTTGGCATTGCTCTTCA
TabsOBP39-F	GAGGAGATGGTAAGCCGCACTG
TabsOBP39-R	TCCGCCGAACAGGTTGGTCA
TabsOBP40-F	TTCAGGAACACCGTCGTCACC
TabsOBP40-R	TTAGGCTTCGCATTGTCCATCGT
TabsOBP41-F	TATGCCGCCGTGGAGGTGATT
TabsOBP41-R	CCTTGACAGTGGTCTTCTGAACTC
TabsOBP42-F	ATACGACTACGAGACGAAGGAAGGT
TabsOBP42-R	GCTGCTTGTTGCCTCCGAAGA
TabsOBP43-F	GAACCTCTCCGACCATGTCATACG

TabsOBP43-R	TATCCACCATCTTGCCTTCACATTTCAT
TabsOBP44-F	TCGTGACGGAATGTATGATATGGACTG
TabsOBP44-R	TCTATCCTATGAGAGTGATTACTGGCTACT
TabsOBP45-F	TGGAAGGATGGCTACGAGGTGAC
TabsOBP45-R	GCAGGCTACCATCAGGAGATACCA
TabsOBP46-F	GCCATCAAGTGTCTCAGCACCAA
TabsOBP46-R	TCTCACAGCCGTGGATCAGGTC
TabsOBP47-F	CGCCATCATCTGTATGTCCAATAAGTTC
TabsOBP47-R	CAGGCAGACACCTTCACCACAC
TabsOBP48-F	GCCATCATGTGTCTAAGCACCAAGT
TabsOBP48-R	GCAACCATCTTCGTCATCAGGAGTC
TabsOBP49-F	AACTGACTGAGGAGAAGATGGAGGAG
TabsOBP49-R	CTATGTGAAGGATACGCCAGCAGTG
TabsOBP50-F	AACTGACTGAGGAGAAGATGGAGGAG
TabsOBP50-R	CTATGTGAAGGATACGCCAGCAGTG
TabsOBP51-F	GAGAAGAAATGGGAGGACAGGATGG
TabsOBP51-R	GCCTTGGTCTAGCATACTTGGA
TabsOBP52-F	GACGGTCATCATCCAGGAGTCTGA
TabsOBP52-R	AGTCGTTGAACACCTTAGCCTTCTTG
TabsOBP53-F	CGAGACCTACACGAACCGCTACA
TabsOBP53-R	GGTCGCACTTCGCACAGTTGTT
TabsOBP54-F	GATGAATACACCGACAAGTACGACAAC
TabsOBP54-R	GCACTTCTCGCAGTAGGTCTCC
TabsOBP55-F	GAATCGTAGGTTATTGCTGCCGTATATCA
TabsOBP55-R	CATTGACAGCCAGGAAGTCTTCGTAG
TabsOBP56-F	AGCAGTGGTCGCCGATGAGAA
TabsOBP56-R	TACGCCAGCAGGAGTCTCTTGTT
TabsOBP57-F	ATATTGATAGACCAGAAGCACACTCCG
TabsOBP57-R	GCGACGACTAAGCACAAGACAATA
TabsOBP58-F	TGGAAGGAACTGTCGGCGAAGTA
TabsOBP58-R	GTCTTGGCGGCTTGAATCCTGTC
TabsOBP59-F	AGCGTAGCCACCATCGTCACA
TabsOBP59-R	CATCATTGCTCTGATAACTTGTCGGATC
TabsOBP60-F	TCCTACTCCAAGTGCCTACTCAACA
TabsOBP60-R	AGCCAATCCTTAAACGCCTCCTG
TabsOBP61-F	AGGAGTTGGTTGCTATGGACACTTG
TabsOBP61-R	TCGTTCTGGATGATAGAGTCTGTATTGAAG
TabsOBP62-F	CTCAGATCATCGTCATATCAAGTTGCGTTA
TabsOBP62-R	AGTCTTCAAGGCTGTTCACTTCACC
TabsOBP63-F	TATACCAACGACCGACTCCTCAA
TabsOBP63-R	CTTCCTGATGTTGTTCTTCTGCTTGTC
TabsOBP64-F	TCATTCAGAACAGGAGGCTACTAAGGA
TabsOBP64-R	TTGCACAACCTCGTCTTGACTACTTCT
TabsOBP65-F	GAAGCGGTGGTGAGCGACAA

TabsOBP65-R	TCAGGCGTTAGCAACAGCAGTT
TabsOBP66-F	CTACGGACCACGATGACCTAGACA
TabsOBP66-R	GCGAACGATTCAGGCAGGAACT
TabsOBP67-F	CTATTCTGGTACTGTGCGTGTTGGT
TabsOBP67-R	ACTGTCGTAGGCTGGGTTGTAGG
TabsOBP68-F	ACAGACTACGACTACGGAGGATATGG
TabsOBP68-R	GACGCTGGTGCTCTCATTGTAACT
TabsOBP69-F	TCCGTCGTCTTCCTTACACTGCTA
TabsOBP69-R	CTTGGCTATCATCACTTTCTGCTTGG
TabsOBP70-F	TCCGTCGTCTTCCTTACACTGCTA
TabsOBP70-R	CTTGGCTATCATCACTTTCTGCTTGG
TabsOBP71-F	GATTCCAGACAATGAGACGGCTAAGT
TabsOBP71-R	GTCAGGCACATGGTCAGCAAGG
TabsOBP72-F	AAGTGTCTTCTTGCCGTGCGTGTT
TabsOBP72-R	TCTCCGTCAGATACAGTCTCGTCATT
TabsOBP73-F	TGCTTACCGAAGACAAATGTTGAGGA
TabsOBP73-R	GCCGATTCATAGTTGAACTTGCCATT
TabsOBP74-F	GTGATGAAGACCGTGGACCTGATG
TabsOBP74-R	AAGAGTAGAACGCAGCTTCACAGAG
TabsOBP75-F	AGATATGGTGAACAAGCAAGTGGACAT
TabsOBP75-R	CAGCATAGAATACTCGGTCGCAGAAG
TabsOBP76-F	AGAGAAAGGGCAGTTTGTCTGAAGAAA
TabsOBP76-R	TTGCTGTCCAATAAGACGCCTCAC
TabsOBP77-F	GCGGTGATGCCTTACATTGTGGAA
TabsOBP77-R	TGCCTTCTGTGGAAGCGAGTGT
TabsOBP78-F	TGCCGAATGCTTGTTCAAGAAGATTG
TabsOBP78-R	CTCGCTCAAATCGTGGTCGTTCA
TabsOBP79-F	ATTCCTGCGATACGGATTCCAATGTC
TabsOBP79-R	AGCGGTTGTTCTTGAAGGCGATC
TabsOBP80-F	CTCTACGGCTTTGTTCTGTTGTGTATTC
TabsOBP80-R	AATCTTCTCCTTCTGTTCTGCTGTCATAG
TabsOBP81-F	GCAAGCAATGTAGAGTCGCAGGAT
TabsOBP81-R	TGACAGGTA CT TCTCACTTATCGCATA C
TabsOBP82-F	AGTGTCTACTTGCCTGTGCTTACAA
TabsOBP82-R	TCACCGTCGCTTACTTCAACATCAT
TabsOBP83-F	GCAAGCAATGTAGAGTCGCAGGAT
TabsOBP83-R	TGACAGGTA CT TCTCACTTATCGCATA C
TabsOBP84-F	AGTGCGTCGTAAGAGCCAAGGT
TabsOBP84-R	CTTCTATACATCTGTTGCCGTTGTTGATTC
TabsOBP85-F	TGTTCTGTCGTGCTAGTCACAATCG
TabsOBP85-R	TGTCCTCTGCTGAATTCTCTACCAT
TabsOBP86-F	CATCTACGAGACGAACCACCTTACC
TabsOBP86-R	GTGTCACCGCTGTCAGGAATCC
TabsOBP87-F	GAACCAGCAAGTAGAACCATTTCAGAA



TabsOBP87-R	TGAGAACTTCGCTATCGTCTTCGTAG
TabsOBP88-F	GAAGAGTCCAAGCGATACACAGATATGAT
TabsOBP88-R	TGAAGGTGATGGCATAACAGTTGAGTG
TabsOBP89-F	GACGGTCATCATCCAGGAGTCTGA
TabsOBP89-R	AGTCGTTGAACACCTTAGCCTTCTTG
TabsOBP90-F	GTCCGCAAGCTCAGCAGTGTT
TabsOBP90-R	TGTTCTCGTTCAAGCAATCGTTGTATG
TabsOBP91-F	CATCACTACCACCACCAGCACTG
TabsOBP91-R	CAATACACAGGCAATCAGACATTCTCC
TabsOBP92-F	GAGCCAGTAGTCAAGAACGGTCAA
TabsOBP92-R	TGAAGAGGTTGGTGAAGTAGAGGATGA
TabsOBP93-F	TCGCTCCAACCTTCACCAACCA
TabsOBP93-R	CGTACTCCGCCAGAATGTCTCCTT
TabsOBP94-F	GAGACGATAGCAGAATCCTTCAGCAA
TabsOBP94-R	GACCAGCCAGTGTAGCCAGTTG
TabsOBP95-F	TCACTCTCGTGGTATTCATCACTCTGT
TabsOBP95-R	TCTGCCTCCATCCGACTTAGTTCTT
TabsOBP96-F	ATTTTGACGCAACGAACAGA
TabsOBP96-R	AATACTACCATGAGGCACTCCA
TabsOBP97-F	ATGCGTGCCGTCCTGGTGTT
TabsOBP97-R	GCTGTGCTGTGATGAACTTCTTACTGT
EF1 $\alpha$ -F	CCTGGGCACAGAGATTTTCAT
EF1 $\alpha$ -R	GATCAGCTGCTTGACACCAA
GAPDH-F	GCGTCAACCTTGAAGCCTAC
GAPDH-R	TTACCAGAGGGACCGTCAAC

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**Table S3. Developmental stage-specific expression profile of *TaOBPs* based on TPM value.**

<b>Geneid</b>	<b>Egg</b>	<b>L-1</b>	<b>L-2</b>	<b>L-3</b>	<b>L-4</b>	<b>Adult</b>
<i>TabsOBP67</i>	4.85906	3158.03	1945.63	2417.48	1110.05	2087.55
<i>TabsOBP60</i>	1.57693	424.185	175.511	275.607	249.841	2070.36
<i>TabsOBP77</i>	0.265322	125.855	44.5637	48.6623	36.9477	1380.25
<i>TabsOBP54</i>	229.343	2956.49	2303.15	2531.05	1275.85	1223.27
<i>TabsOBP46</i>	2.08637	0.49405	0.335451	0.218979	0.655127	1220.81
<i>TabsOBP58</i>	10.9814	27.483	20.52	17.0527	15.3439	1165.31
<i>TabsOBP45</i>	0.222577	0.249415	0	0.221993	0.398512	1084.82
<i>TabsOBP12</i>	0.465031	1.25213	0.240863	0.624206	0.748041	1024.85
<i>TabsOBP89</i>	0	0	0	0.339564	0	1013.41
<i>TabsOBP55</i>	0.613637	0.74345	0.647994	2.08243	2.24826	525.508
<i>TabsOBP62</i>	0.571484	2.13785	0.90066	1.93349	0.231877	509.153
<i>TabsOBP32</i>	0	7.07576	2.09167	4.84495	58.6878	491.55
<i>TabsOBP59</i>	3.36071	3.66247	9.25146	4.4351	4.43621	467.991
<i>TabsOBP63</i>	3.94282	45.2587	218.216	193.9	401.129	443.095
<i>TabsOBP01</i>	1.02921	0.254338	0.34998	5.02245	6.96705	384.517
<i>TabsOBP43</i>	0.104272	0	0.794688	0.207683	0.248495	362.934
<i>TabsOBP25</i>	0.347108	26.1184	14.4843	1.03443	7.11404	357.348
<i>TabsOBP28</i>	7.77461	6.99085	1.43493	0.681951	0.376174	326.363
<i>TabsOBP76</i>	0.494383	2.89429	1.19434	0.508298	0.610177	323.002
<i>TabsOBP94</i>	74.2223	17.9591	22.1345	33.0722	19.0871	295.784
<i>TabsOBP29</i>	0.0988533	375.83	182.793	162.928	165.567	253.895
<i>TabsOBP80</i>	1.77212	513.091	149.645	69.5572	25.1863	243.905
<i>TabsOBP56</i>	3.89937	703.456	1059.75	798.322	401.135	215.395
<i>TabsOBP17</i>	0.117607	0	0.540544	0.822263	0.984257	205.363
<i>TabsOBP91</i>	0.629922	0.321492	0.284008	0.248808	0	182.954
<i>TabsOBP48</i>	0.439236	0.247025	0.167725	0.328469	0	178.66
<i>TabsOBP13</i>	103.819	0.756174	6.64034	18.2546	15.6167	177.12
<i>TabsOBP24</i>	9.75578	0.875307	6.02749	106.149	278.319	173.233
<i>TabsOBP74</i>	0.383853	0	0.655704	0	0	166.852
<i>TabsOBP47</i>	0.23192	9.76118	11.1855	3.82082	1.66296	148.959
<i>TabsOBP03</i>	1.45722	769.721	523.111	168.85	127.468	144.529
<i>TabsOBP85</i>	1.77111	0.320825	0.501613	0.162332	0.389072	140.372
<i>TabsOBP65</i>	3092.04	733.688	1410.86	3890.6	5408.39	108.069
<i>TabsOBP97</i>	89.6123	22.31	27.5942	33.3594	41.0775	102.993
<i>TabsOBP95</i>	0	10.7694	11.273	6.69366	3.69966	95.4088
<i>TabsOBP37</i>	0.267976	633.592	374.271	199.857	118.136	93.616
<i>TabsOBP22</i>	2.81592	17.24	107.427	52.8748	21.2764	88.5342
<i>TabsOBP26</i>	4.62641	514.536	402.066	410.433	85.3414	83.004
<i>TabsOBP53</i>	3155.08	2.3669	3.98775	2.32199	1.95061	77.1849
<i>TabsOBP09</i>	0.0512675	19.7698	34.0505	7.97615	3.25776	54.2497

<i>TabsOBP40</i>	1.01831	826.749	752.074	522.533	177.835	52.6333
<i>TabsOBP73</i>	0.866903	3.29016	2.83455	1.65661	0	46.8209
<i>TabsOBP11</i>	0	0	0	0	0	43.7508
<i>TabsOBP41</i>	545.552	1.01735	0.501399	0.439755	4.53303	41.378
<i>TabsOBP82</i>	0	83.9634	20.2338	9.88329	4.41908	39.1279
<i>TabsOBP23</i>	70.5839	62.948	107.38	169.618	159.313	35.6215
<i>TabsOBP05</i>	0.244215	20.1419	122.415	39.4155	8.96033	31.5232
<i>TabsOBP15</i>	0.589603	19.7215	42.6682	21.2771	9.24546	30.9792
<i>TabsOBP64</i>	0.494383	18.1927	26.6737	19.8236	7.9323	28.4434
<i>TabsOBP10</i>	0.0509512	7.5433	7.69734	1.95651	12.1103	27.4935
<i>TabsOBP57</i>	1.74544	825.365	1028.63	956.115	970.016	27.3795
<i>TabsOBP06</i>	0	1.62491	6.82544	1.16109	0.844606	25.9824
<i>TabsOBP49</i>	0	0	0	0.105198	0	23.6584
<i>TabsOBP84</i>	0.0573121	2.08166	3.6953	4.3517	5.13333	23.3886
<i>TabsOBP52</i>	3.76342	0.259459	0.720725	0.352398	0.421824	22.4032
<i>TabsOBP61</i>	2.09715	5.28031	7.98773	3.41999	2.82095	20.4148
<i>TabsOBP02</i>	0	0.342119	2.2369	0.180438	0	18.1414
<i>TabsOBP87</i>	0.0660116	0.166995	0	0	0	17.4378
<i>TabsOBP27</i>	0.657808	3.08043	16.875	3.00927	2.67986	17.4002
<i>TabsOBP35</i>	5.26775	37.222	146.638	110.675	71.9691	16.9911
<i>TabsOBP14</i>	0.0644659	0	0	0.0636791	0	14.6275
<i>TabsOBP44</i>	0	0	0	0.0691518	0	14.5522
<i>TabsOBP81</i>	0	14.8361	6.65314	1.75725	0.485768	13.7021
<i>TabsOBP36</i>	0.161836	75.1985	177.964	93.4938	52.2809	13.3906
<i>TabsOBP88</i>	0	0	0	0	0	11.8886
<i>TabsOBP21</i>	254.088	24.9978	36.7997	16.3928	10.6544	11.8154
<i>TabsOBP66</i>	4.07618	1.26063	45.2725	534.318	836.229	9.63997
<i>TabsOBP31</i>	0.0982672	0.130606	0.587514	0.967139	254.597	9.28752
<i>TabsOBP04</i>	0.197707	63.6666	23.7173	21.6005	21.1609	9.22229
<i>TabsOBP18</i>	1.97516	12.5437	32.0436	7.50528	2.65214	7.9255
<i>TabsOBP50</i>	0.933231	0	0	0	0	7.9103
<i>TabsOBP16</i>	23.1083	16.8534	14.677	10.6069	4.49389	7.02915
<i>TabsOBP42</i>	1.35775	0.101335	0.654865	0.216054	3.78518	6.92374
<i>TabsOBP68</i>	0.509512	2.55933	0.914536	0.451502	0.65947	5.51166
<i>TabsOBP08</i>	0.211638	29.3422	71.8316	19.4925	8.5958	4.73002
<i>TabsOBP90</i>	0	0	0	0	0	3.04944
<i>TabsOBP78</i>	0.146791	20.2358	4.54692	1.91765	0.707053	2.92335
<i>TabsOBP92</i>	0.206351	1.22512	8.33536	3.70848	3.27839	2.10329
<i>TabsOBP71</i>	0.14176	22.0261	1.00154	1.6805	0	1.86025
<i>TabsOBP19</i>	0.839476	1.12418	27.5067	0.871604	0.274057	1.70826
<i>TabsOBP20</i>	0.0278029	7.02898	1.68926	0.490065	0.162567	1.25747
<i>TabsOBP83</i>	0.149426	5.50094	3.24343	0.450742	0	1.15103
<i>TabsOBP07</i>	0.0474412	0	0	0.140016	0	1.14009
<i>TabsOBP51</i>	0.0827862	0.300851	0.0611684	0.10117	0.0241581	0.849772

<i>TabsOBP93</i>	0.063475	0.32351	0.286246	0.250743	0.149851	0.826304
<i>TabsOBP30</i>	0	0.229774	0.252425	23.4206	30.5643	0.636849
<i>TabsOBP34</i>	0.0509512	14.009	18.5956	17.5082	14.6282	0.583588
<i>TabsOBP75</i>	0.247192	42.5874	16.3227	6.35372	0.915266	0.482092
<i>TabsOBP86</i>	0.132661	8.18338	0.817682	0.9307	0.477772	0.394807
<i>TabsOBP39</i>	0.161836	39.7195	30.1318	21.8985	315.591	0.34512
<i>TabsOBP38</i>	0.550234	61.6538	148.626	88.4452	75.3107	0.21162
<i>TabsOBP70</i>	0	0	4.92922	110.819	190.65	0.201035
<i>TabsOBP69</i>	0	0	0	0	0	0.201035
<i>TabsOBP72</i>	0	7.90876	2.5056	1.0348	1.22743	0.113202
<i>TabsOBP96</i>	0	0	0.1351	0	0	0.111818
<i>TabsOBP33</i>	0.0485559	31.6774	27.137	105.98	370.382	0.0615362
<i>TabsOBP79</i>	0	0	0.355095	0	107.122	0

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