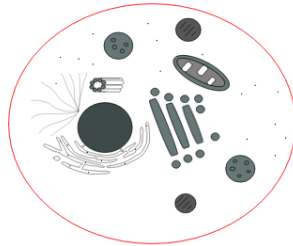


A.

Gene	Short Name	Full Name
KWMTBOMO00115 (BGIBMGA002131)	dTRPA1	Transient receptor potential cation channel subfamily A member 1 + More
Annotation: <a href="#">transient_receptor_potential_cation_channel_subfamily_A_member_1_[Bombyx_mori]</a>		
Description: Essential for thermotaxis by sensing environmental temperature. Receptor-activated non-selective cation channel involved in detection of sensations such as temperature. Involved in heat nociception by being activated by warm temperature of about 24-29 degrees Celsius.		
<a href="#">Gene Information</a> <a href="#">Genome Browser</a> <a href="#">Gene Ontology and Pathway</a> <a href="#">Transcriptional Analysis</a> <a href="#">View Epigenomics Data</a> <a href="#">Protein Structure</a> <a href="#">Population genetics</a> <a href="#">Close</a>		
KWMTBOMO00118 (BGIBMGA002131)	dTRPA1	Transient receptor potential cation channel subfamily A member 1 + More
Annotation: <a href="#">transient_receptor_potential_cation_channel_subfamily_A_member_1_[Bombyx_mori]</a>		
Description: Essential for thermotaxis by sensing environmental temperature. Receptor-activated non-selective cation channel involved in detection of sensations such as temperature. Involved in heat nociception by being activated by warm temperature of about 24-29 degrees Celsius.		

B.

Gene	<b>KWMTBOMO08141</b> Validated by peptides from experiments 0
Pre Gene Modal	BGIBMGA001085
Annotation	PREDICTED:_transient_receptor_potential-gamma_protein_[Bombyx_mori]
Location	<a href="#">Bomo_Chr13(-):17500270-17517839</a> <a href="#">View in EpiBrowser</a>
Full name	Transient receptor potential-gamma protein
Alternative Name	Transient receptor potential cation channel gamma
Location in the cell	PlasmaMembrane Reliability : 3.028



C.

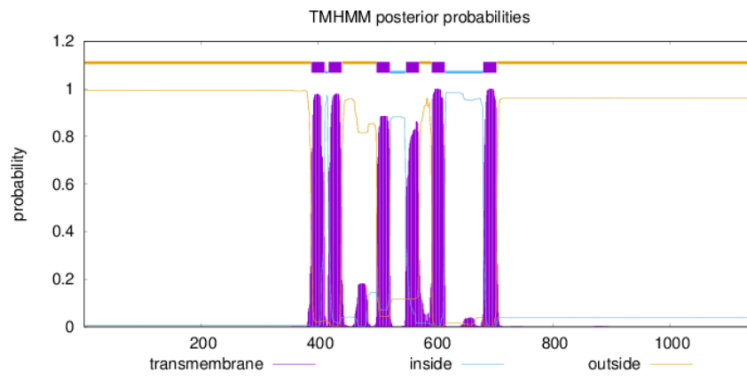
### Summary

Description	<b>A light-sensitive calcium channel that is required for inositide-mediated Ca(2+) entry in the retina during phospholipase C (PLC)-mediated phototransduction (By similarity). Forms a regulated cation channel when heteromultimerized with trpl.</b>
Subunit	Interacts preferentially with trpl and interacts to a lower extent with trp.
Similarity	Belongs to the transient receptor (TC 1.A.4) family. Belongs to the transient receptor (TC 1.A.4) family. STpC subfamily.
Keywords	<b>ANK repeat Calcium Calcium channel Calcium transport Complete proteome Ion channel Ion transport Membrane Reference proteome Repeat Sensory transduction Transmembrane Transmembrane helix Transport Vision</b>
Feature	chain Transient receptor potential-gamma protein
Uniprot	<a href="#">H9IV05</a> <a href="#">A0A212EVK1</a> <a href="#">A0A2H1WAA9</a> <a href="#">A0A2A4J9Y4</a> <a href="#">A0A2W1B XK2</a> <a href="#">A0A182RRP8</a> + More
Pubmed	<a href="#">19121390</a> <a href="#">22118469</a> <a href="#">28756777</a> <a href="#">12364791</a> <a href="#">20966253</a> <a href="#">26227816</a> + More
EMBL	<a href="#">BABH01000036</a> <a href="#">BABH01000037</a> <a href="#">BABH01000038</a> <a href="#">AGBW02012175</a> <a href="#">OWR45522.1</a> <a href="#">ODYU01007315</a> + More
Proteomes	<a href="#">UP000005204</a> <a href="#">UP000007151</a> <a href="#">UP000218220</a> <a href="#">UP000075900</a> <a href="#">UP000075920</a> <a href="#">UP000075902</a> + More
PRIDE	<a href="#">H9IV05</a> <a href="#">B7YZW4</a> <a href="#">Q9VJJ7</a>
Pfam	<a href="#">PF08344</a> TRP_2 + More
Interpro	<a href="#">IPR020683</a> Ankyrin_rpt-contain_dom + More
SUPFAM	<a href="#">SSF48403</a> SSF48403 + More
Gene 3D	<a href="#">1.25.40.20</a> <a href="#">1.20.1560.10</a>
CDD	<a href="#">cd00204</a> ANK
ProteinModelPortal	<a href="#">H9IV05</a> <a href="#">A0A212EVK1</a> <a href="#">A0A2H1WAA9</a> <a href="#">A0A2A4J9Y4</a> <a href="#">A0A2W1B XK2</a> <a href="#">A0A182RRP8</a> + More
PDB	<a href="#">5Z96</a> E-value=0, Score=1787

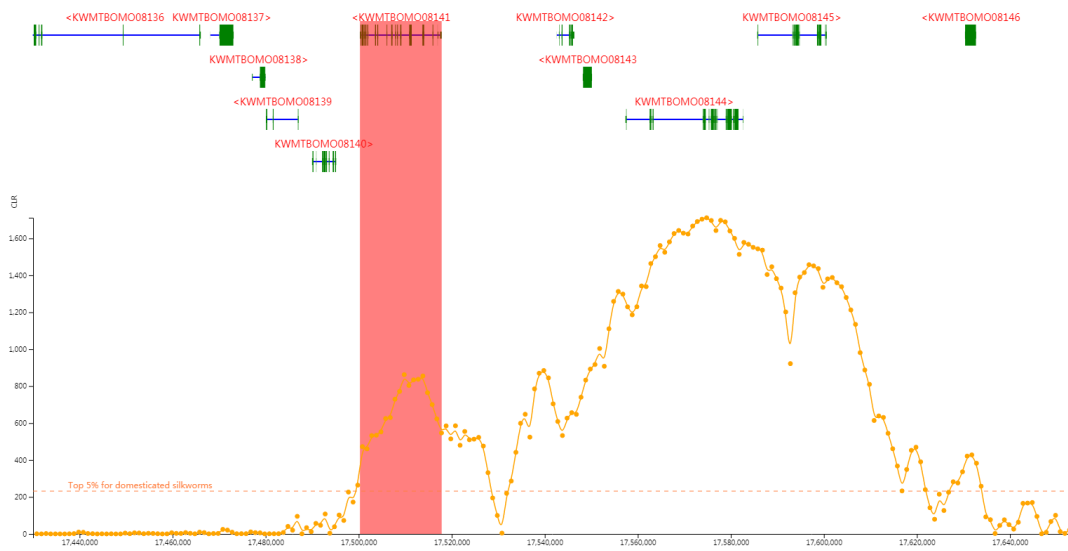
### Ontologies

KEGG	<a href="#">101736324</a> <a href="#">K04967</a> transient receptor potential cation channel subfamily C member 4   (RefSeq) transient recepto
PATHWAY	<a href="#">04745</a> Phototransduction - fly - Bombyx mori (domestic silkworm)

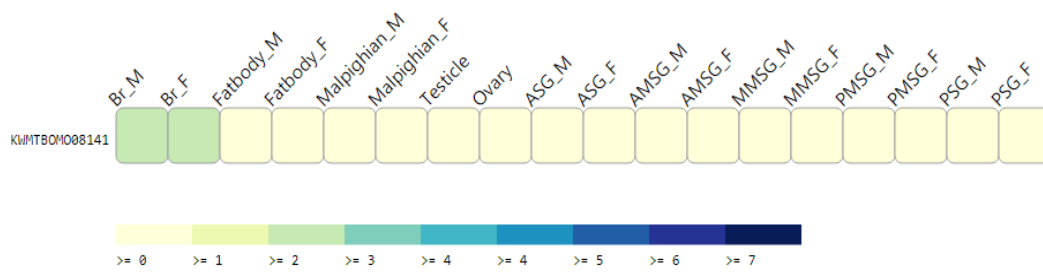
D.



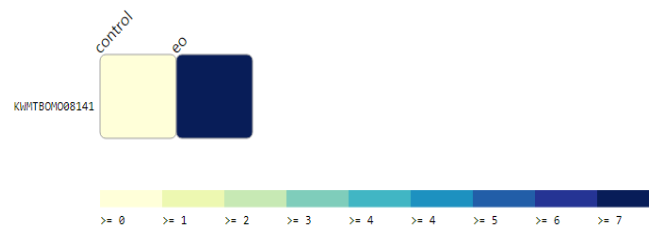
E.



F.



G.



H.

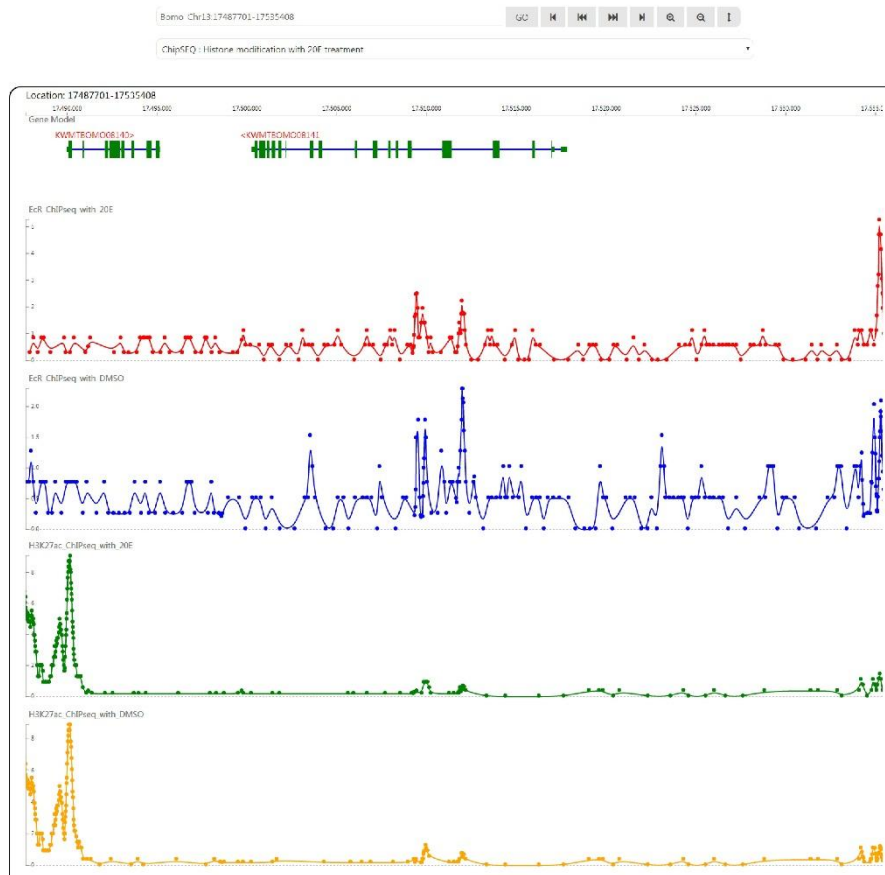


Figure S1. An example showing the online analysis of KWMTBOMO08141 in SGID. A is a snapshot of the search result for “transient receptor”. The result page lists correlated gene followed by links to gene details, genome browser, gene ontology and pathway, transcriptional analysis, epigenomic signal visualization, protein structure and population genetics analysis results. B is a snapshot of the gene detail page. Subcellular location of the gene is colored in red in a diagram following the basic information. C is the “summary” and “Ontology” parts in the detail page. D is a snapshot of the topology prediction in SGID. E is a CLR analysis figure generated by SGID genome browser with KWMTBOMO08141 marked by a focus bar colored in red. F is the expression of the gene in different tissues (PRJNA284192). M, male. F, female. Br, brain. ASG, anterior silk gland. AMSG, anterior middle silk gland. MMSG, middle middle silk gland. PMSG, post middle silk gland. PSG, post silk gland. G is the expression of the gene in the middle silk gland (PSG) of normal (control) and ecdysone oxidase overexpressed (eo) samples (PRJNA272381). H. A snapshot (partly displayed) of epigenomic signals at KWMTBOMO08141 in 4 cell lines (Ecr, H3K27ac, H3K4me1 and H3K4me3) treated with DMSO or 20E (PRJNA450142).