

GEPHE SUMMARY

scabrous (https://www.gephebase.org/search-criteria?/and+GeneGephebase=~scabrous~#gephebase-summary-title)		Gephebase Gene	GP00001025	GepheID
Published		Entry Status	Martin	Main curator

PHENOTYPIC CHANGE

Morphology (https://www.gephebase.org/search-criteria?/and+TraitCategory=~Morphology~#gephebase-summary-title)		Trait Category	
Bristle number (thorax) (https://www.gephebase.org/search-criteria?/and+Trait=~Bristle number (thorax)~#gephebase-summary-title)		Trait	
Drosophila melanogaster		Trait State in Taxon A	
Drosophila melanogaster		Trait State in Taxon B	
Data not curated		Ancestral State	
Intraspecific (https://www.gephebase.org/search-criteria?/and+TaxonomicStatus=~Intraspecific~#gephebase-summary-title)		Taxonomic Status	
Taxon A		Taxon B	
Drosophila melanogaster (https://www.gephebase.org/search-criteria?/and+Taxon and Synonyms=~Drosophila melanogaster~#gephebase-summary-title)		Drosophila melanogaster (https://www.gephebase.org/search-criteria?/and+Taxon and Synonyms=~Drosophila melanogaster~#gephebase-summary-title)	
fruit fly		fruit fly	
Sophophora melanogaster; fruit fly; Drosophila melanogaster Meigen, 1830; Sophophora melanogaster (Meigen, 1830); Drosophila melangaster		Sophophora melanogaster; fruit fly; Drosophila melanogaster Meigen, 1830; Sophophora melanogaster (Meigen, 1830); Drosophila melangaster	
species		species	
cellular organisms; Eukaryota; Opisthokonta; Metazoa; Eumetazoa; Bilateria; Protostomia; Ecdysozoa; Panarthropoda; Arthropoda; Mandibulata; Pancrustacea; Hexapoda; Insecta; Dicondylia; Pterygota; Neoptera; Holometabola; Diptera; Brachycera; Muscomorpha; Eremoneura; Cyclorrhapha; Schizophora; Acalyptratae; Ephydroidea; Drosophilidae; Drosophilinae; Drosophilini; Drosophila; Sophophora; melanogaster group; melanogaster subgroup		cellular organisms; Eukaryota; Opisthokonta; Metazoa; Eumetazoa; Bilateria; Protostomia; Ecdysozoa; Panarthropoda; Arthropoda; Mandibulata; Pancrustacea; Hexapoda; Insecta; Dicondylia; Pterygota; Neoptera; Holometabola; Diptera; Brachycera; Muscomorpha; Eremoneura; Cyclorrhapha; Schizophora; Acalyptratae; Ephydroidea; Drosophilidae; Drosophilinae; Drosophilini; Drosophila; Sophophora; melanogaster group; melanogaster subgroup	
melanogaster subgroup () - (Rank: species subgroup) (https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 32351)		melanogaster subgroup () - (Rank: species subgroup) (https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 32351)	
7227 (https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 7227)		7227 (https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 7227)	
No		No	
is Taxon A an Infraspecies?		is Taxon B an Infraspecies?	

GENOTYPIC CHANGE

sca		Generic Gene Name	UniProtKB Drosophila melanogaster
AAA28880; AAF58455; anon-EST:Liang-38; CG17579; clone 38; Dmel\CG17579; FBpp0086968; FBpp0086969; mAb sca1; Sca; Sca1b		Synonyms	GenebankID or UniProtKB
7227.FBpp0086969 (http://string-db.org/newstring.cgi/show_network_section.pl?identifier= 7227.FBpp0086969)		String	
-		Sequence Similarities	
-		GO - Molecular Function	
-		GO - Biological Process	
GO:0008407 : chaeta morphogenesis			

(<https://www.ebi.ac.uk/QuickGO/term/GO:0008407>)
GO:0007399 : nervous system development
(<https://www.ebi.ac.uk/QuickGO/term/GO:0007399>)
GO:0007219 : Notch signaling pathway
(<https://www.ebi.ac.uk/QuickGO/term/GO:0007219>)
GO:0048749 : compound eye development
(<https://www.ebi.ac.uk/QuickGO/term/GO:0048749>)
GO:0046331 : lateral inhibition (<https://www.ebi.ac.uk/QuickGO/term/GO:0046331>)
GO:0007460 : R8 cell fate commitment
(<https://www.ebi.ac.uk/QuickGO/term/GO:0007460>)
GO:0045468 : regulation of R8 cell spacing in compound eye
(<https://www.ebi.ac.uk/QuickGO/term/GO:0045468>)
GO:0008587 : imaginal disc-derived wing margin morphogenesis
(<https://www.ebi.ac.uk/QuickGO/term/GO:0008587>)
GO:0016318 : ommatidial rotation (<https://www.ebi.ac.uk/QuickGO/term/GO:0016318>)
GO:0016321 : female meiosis chromosome segregation
(<https://www.ebi.ac.uk/QuickGO/term/GO:0016321>)
GO:0097305 : response to alcohol (<https://www.ebi.ac.uk/QuickGO/term/GO:0097305>)
GO - Cellular Component
GO:0005576 : extracellular region (<https://www.ebi.ac.uk/QuickGO/term/GO:0005576>)
GO:0005770 : late endosome (<https://www.ebi.ac.uk/QuickGO/term/GO:0005770>)

	Presumptive Null
Unknown (https://www.gephebase.org/search-criteria?/and+Presumptive Null=~Unknown~#gephebase-summary-title)	
	Molecular Type
Unknown (https://www.gephebase.org/search-criteria?/and+Molecular Type=~Unknown~#gephebase-summary-title)	
	Aberration Type
Unknown (https://www.gephebase.org/search-criteria?/and+Aberration Type=~Unknown~#gephebase-summary-title)	
	Molecular Details of the Mutation
unknown; but different sites than for abdomen association	
	Experimental Evidence
Linkage Mapping (https://www.gephebase.org/search-criteria?/and+Experimental Evidence=~Linkage Mapping~#gephebase-summary-title)	
	Main Reference
Naturally occurring variation in bristle number and DNA polymorphisms at the scabrous locus of Drosophila melanogaster. (1994) (https://pubmed.ncbi.nlm.nih.gov/7992053)	
	Authors
Lai C; Lyman RF; Long AD; Langley CH; Mackay TF	
	Abstract
The association between quantitative genetic variation in bristle number and molecular variation at a candidate neurogenic locus, scabrous, was examined in Drosophila melanogaster. Approximately 32 percent of the genetic variation in abdominal bristle number (21 percent for sternopleural bristle number) among 47 second chromosomes from a natural population was correlated with DNA sequence polymorphisms at this locus. Several polymorphic sites associated with large phenotypic effects occurred at intermediate frequency. Quantitative genetic variation in natural populations caused by alleles that have large effects at a few loci and that segregate at intermediate frequencies conflicts with the classical infinitesimal model of the genetic basis of quantitative variation.	
	Additional References

RELATED GEPHE

	Related Genes
7 (achaete-scute complex, Delta, Dopa-decarboxylase, hairy (h), poils au dos (pad), smooth, Catecholamines up) (https://www.gephebase.org/search-criteria?/or+Taxon ID=~7227~/and+Trait=Bristle number/and+groupHaplotypes=true#gephebase-summary-title)	
	Related Haplotypes
1 (https://www.gephebase.org/search-criteria?/or+Gene Gephebase=~scabrous~/and+Taxon ID=~7227~/or+Gene Gephebase=~scabrous~/and+Taxon ID=~7227~#gephebase-summary-title)	

EXTERNAL LINKS

COMMENTS