

Spint1 (<a +spint1~#gephebase-summary-title"="" href="https://www.gephebase.org/search-criteria?/and+Gene+Gephebase=">https://www.gephebase.org/search-criteria?/and+Gene+Gephebase="+Spint1~#gephebase-summary-title)	Gephebase Gene	GP00002365	GepheID
Draft	Entry Status	Santos	Main curator

Taxon A		Taxon B	
Trait Category	Trait	Trait Category	Trait
Morphology (https://www.gephebase.org/search-criteria?/and+TraitCategory=~Morphology^#gephebase-summary-title)		Morphology (https://www.gephebase.org/search-criteria?/and+TraitCategory=~Morphology^#gephebase-summary-title)	
Coloration (https://www.gephebase.org/search-criteria?/and+Trait=~Coloration^#gephebase-summary-title)		Coloration (https://www.gephebase.org/search-criteria?/and+Trait=~Coloration^#gephebase-summary-title)	
Spotted leopard pattern		Spotted leopard pattern	
Lemon frost morph; increased white body coloration and brightened yellow and orange areas		Lemon frost morph; increased white body coloration and brightened yellow and orange areas	
Taxon A		Taxon B	
Domesticated (https://www.gephebase.org/search-criteria?/and+TaxonomicStatus=~Domesticated^#gephebase-summary-title)		Domesticated (https://www.gephebase.org/search-criteria?/and+TaxonomicStatus=~Domesticated^#gephebase-summary-title)	
Eublepharis macularius		Eublepharis macularius	
(https://www.gephebase.org/search-criteria?/and+Taxon+and+Synonyms=~Eublepharis+macularius^#gephebase-summary-title)		(https://www.gephebase.org/search-criteria?/and+Taxon+and+Synonyms=~Eublepharis+macularius^#gephebase-summary-title)	
-		-	
Cyrtodactylus macularius; Leopard gecko; Cyrtodactylus macularius Blyth, 1854; Eublepharis macularius Blyth, 1854; ZSI 6224; ZSI:6224; Eublepharis macularis; Eublepharus macularius		Cyrtodactylus macularius; Leopard gecko; Cyrtodactylus macularius Blyth, 1854; Eublepharis macularius Blyth, 1854; ZSI 6224; ZSI:6224; Eublepharis macularis; Eublepharus macularius	
species		species	
cellular organisms; Eukaryota; Opisthokonta; Metazoa; Eumetazoa; Bilateria; Deuterostomia; Chordata; Craniata; Vertebrata; Gnathostomata; Teleostomi; Euteleostomi; Sarcopterygii; Dipnotetrapodomorpha; Tetrapoda; Amniota; Sauropsida; Sauria; Lepidosauria; Squamata; Bifurcata; Gekkota; Eublepharidae; Eublepharinae; Eublepharis		cellular organisms; Eukaryota; Opisthokonta; Metazoa; Eumetazoa; Bilateria; Deuterostomia; Chordata; Craniata; Vertebrata; Gnathostomata; Teleostomi; Euteleostomi; Sarcopterygii; Dipnotetrapodomorpha; Tetrapoda; Amniota; Sauropsida; Sauria; Lepidosauria; Squamata; Bifurcata; Gekkota; Eublepharidae; Eublepharinae; Eublepharis	
Eublepharis () - (Rank: genus)		Eublepharis () - (Rank: genus)	
(https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 96736)		(https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 96736)	
481883		481883	
(https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 481883)		(https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 481883)	
is Taxon A an Intraspecies?		is Taxon B an Intraspecies?	
No		No	

Generic Gene Name	UniProtKB
Q9R097NULL (http://www.uniprot.org/uniprot/Q9R097NULL)	
Synonyms	GenebankID or UniProtKB
0	
String	
Sequence Similarities	
GO - Molecular Function	
GO - Biological Process	
GO - Cellular Component	
Presumptive Null	
No (<a +no^#gephebase-summary-title"="" href="https://www.gephebase.org/search-criteria?/and+Presumptive Null=">https://www.gephebase.org/search-criteria?/and+Presumptive Null="+No^#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
-	Experimental Evidence
Linkage Mapping (https://www.gephebase.org/search-criteria?/and+Experimental Evidence=~Linkage Mapping^#gephebase-summary-title)	Main Reference
Genetics of white color and iridophoroma in “Lemon Frost” leopard geckos. (2021) (https://pubmed.ncbi.nlm.nih.gov/34166378)	Authors
Guo L; Bloom J; Sykes S; Huang E; Kashif Z; Pham E; Ho K; Alcaraz A; Xiao XG; Duarte-Vogel S; Kruglyak L	Abstract
The squamates (lizards and snakes) are close relatives of birds and mammals, with more than 10,000 described species that display extensive variation in a number of important biological traits, including coloration, venom production, and regeneration. Due to a lack of genomic tools, few genetic studies in squamates have been carried out. The leopard gecko, <i>Eublepharis macularius</i> , is a popular companion animal, and displays a variety of coloration patterns. We took advantage of a large breeding colony and used linkage analysis, synteny, and homozygosity mapping to investigate a spontaneous semi-dominant mutation, “Lemon Frost”, that produces white coloration and causes skin tumors (iridophoroma). We localized the mutation to a single locus which contains a strong candidate gene, <i>SPINT1</i> , a tumor suppressor implicated in human skin cutaneous melanoma (SKCM) and over-proliferation of epithelial cells in mice and zebrafish. Our work establishes the leopard gecko as a tractable genetic system and suggests that a tumor suppressor in melanocytes in humans can also suppress tumor development in iridophores in lizards.	
	Additional References

RELATED GEPHE

No matches found.	Related Genes
No matches found.	Related Haplotypes

EXTERNAL LINKS

COMMENTS