

TAS1R3 (https://www.gephebase.org/search-criteria?/and+GeneGephebase=^TAS1R3~#gephebase-summary-title)	Gephebase Gene	GP00001306	GepheID
Published	Entry Status	Courtier	Main curator

	Trait Category
Physiology (https://www.gephebase.org/search-criteria?/and+Trait+Category=^Physiology^#gephebase-summary-title)	
	Trait
Taste sensitivity (sugar) (https://www.gephebase.org/search-criteria?/and+Trait=^Taste+sensitivity+(sugar)^#gephebase-summary-title)	
	Trait State in Taxon A
Gallus gallus	
	Trait State in Taxon B
Calypte anna	
	Ancestral State
Taxon A	
	Taxonomic Status
Interspecific (https://www.gephebase.org/search-criteria?/and+Taxonomic+Status=^Interspecific^#gephebase-summary-title)	

UniProtKB	Gene Name	Accession	GenebankID or UniProtKB
T1R3	Generic Gene Name	A0A088DCH0 (http://www.uniprot.org/uniprot/A0A088DCH0)	UniProtKB Calypte anna
T1R3	Synonyms	103537352 (https://www.ncbi.nlm.nih.gov/nuccore/103537352)	GenebankID or UniProtKB
-	String		
	Sequence Similarities		
	Belongs to the G-protein coupled receptor 3 family.		
	GO - Molecular Function		
	GO:0004930 : G protein-coupled receptor activity (https://www.ebi.ac.uk/QuickGO/term/GO:0004930)		
	GO - Biological Process		
-			
	GO - Cellular Component		
	GO:0016021 : integral component of membrane (https://www.ebi.ac.uk/QuickGO/term/GO:0016021)		
	GO:0005886 : plasma membrane (https://www.ebi.ac.uk/QuickGO/term/GO:0005886)		

No (<https://www.gephebase.org/search-criteria?/and+Presumptive+Null=~No~#gephebase-summary-title>)

Coding (<https://www.gephebase.org/search-criteria?/and+Molecular+Type=~Coding~#gephebase-summary-title>)

SNP (<https://www.gephebase.org/search-criteria?/and+Aberration+Type=~SNP~#gephebase-summary-title>)

Nonsynonymous

19 nonconsecutive amino acids confer sugar responsiveness and they are confined to three different regions of the protein - change(s) in all 3 regions are required for the acquisition of sugar binding- The exact effect of each single amino acid change has not been tested

Candidate Gene (<https://www.gephebase.org/search-criteria?/and+Experimental+Evidence=~Candidate+Gene~#gephebase-summary-title>)

Presumptive Null

Molecular Type

Aberration Type

SNP Coding Change

Molecular Details of the Mutation

Experimental Evidence

	Taxon A	Taxon B	Position
Codon	-	-	-
Amino-acid	-	-	-

Sensory biology. Evolution of sweet taste perception in hummingbirds by transformation of the ancestral umami receptor. (2014) (<https://pubmed.ncbi.nlm.nih.gov/25146290>)

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Main Reference

Authors

Abstract

Additional References

RELATED GEPHE

1 (TAS1R1) (<https://www.gephebase.org/search-criteria?/or+Taxon+ID=~9031~/and+Trait=Taste+sensitivity/or+Taxon+ID=~9244~/and+Trait=Taste+sensitivity/and+groupHaplotypes=true#gephebase-summary-title>)

No matches found.

Related Genes

Related Haplotypes

EXTERNAL LINKS

COMMENTS

@SeveralCandidateMutations ; Mutations in T1R1 also involved.