

## GEPHE SUMMARY

**Gephebase Gene**  
CORIN

**Entry Status**  
Published

**GepheID**  
GP00002169

**Main curator**  
Martin

## PHENOTYPIC CHANGE

**Trait Category**  
Morphology

**Trait**  
Coloration (coat)

**Trait State in Taxon A**  
Orange striped tiger

**Trait State in Taxon B**  
Golden (tabby) tiger homozygous for the recessive wideband allele

**Ancestral State**  
Taxon A

**Taxonomic Status**  
Intraspecific

### Taxon A

**Latin Name**  
*Panthera tigris*

**Common Name**  
tiger

**Synonyms**  
tiger

**Rank**  
species

**Lineage**  
cellular organisms; Eukaryota; Opisthokonta; Metazoa; Eumetazoa; Bilateria; Deuterostomia; Chordata; Craniata; Vertebrata; Gnathostomata; Teleostomi; Euteleostomi; Sarcopterygii; Dipnotetrapodomorpha; Tetrapoda; Amniota; Mammalia; Theria; Eutheria; Boreoeutheria; Laurasiatheria; Carnivora; Feliformia; Felidae; Pantherinae; Panthera

**Parent**  
Panthera () - (Rank: genus)

**NCBI Taxonomy ID**  
9694

**is Taxon A an Intraspecies?**  
No

### Taxon B

**Latin Name**  
*Panthera tigris*

**Common Name**  
tiger

**Synonyms**  
tiger

**Rank**  
species

**Lineage**  
cellular organisms; Eukaryota; Opisthokonta; Metazoa; Eumetazoa; Bilateria; Deuterostomia; Chordata; Craniata; Vertebrata; Gnathostomata; Teleostomi; Euteleostomi; Sarcopterygii; Dipnotetrapodomorpha; Tetrapoda; Amniota; Mammalia; Theria; Eutheria; Boreoeutheria; Laurasiatheria; Carnivora; Feliformia; Felidae; Pantherinae; Panthera

**Parent**  
Panthera () - (Rank: genus)

**NCBI Taxonomy ID**  
9694

**is Taxon B an Intraspecies?**  
Yes

**Taxon B Description**  
Panthera tigris tigris - Bengal tiger (White tiger)

## GENOTYPIC CHANGE

**Generic Gene Name**  
Corin

**Synonyms**  
Lrp4; AV273130; Crn

**String**  
10090.ENSMUSP00000005352

**Sequence Similarities**  
Belongs to the peptidase S1 family.

**GO - Molecular Function**  
GO:0004175 : endopeptidase activity  
GO:0005044 : scavenger receptor activity  
GO:0004252 : serine-type endopeptidase activity

**GO - Biological Process**  
GO:0030182 : neuron differentiation  
GO:0007565 : female pregnancy  
GO:0008217 : regulation of blood pressure  
GO:0016486 : peptide hormone processing

**UniProtKB Mus musculus**  
Q9Z319

**GenebankID or UniProtKB**

GO:0035813 : regulation of renal sodium excretion  
GO:0003050 : regulation of systemic arterial blood pressure by atrial natriuretic peptide

**GO - Cellular Component**

GO:0005886 : plasma membrane  
GO:0015629 : actin cytoskeleton  
GO:0005887 : integral component of plasma membrane  
GO:0005576 : extracellular region  
GO:0016604 : nuclear body  
GO:0031410 : cytoplasmic vesicle  
GO:0009986 : cell surface

**Presumptive Null**

No

**Molecular Type**

Coding

**Aberration Type**

SNP

**SNP Coding Change**

Nonsynonymous

**Molecular Details of the Mutation**

c.1759C >T p.H587Y

**Experimental Evidence**

Linkage Mapping

|            | Taxon A | Taxon B | Position |
|------------|---------|---------|----------|
| Codon      | -       | -       | -        |
| Amino-acid | His     | Tyr     | 587      |

**Main Reference**

The genetics of tiger pelage color variations. (2017)

**Authors**

Xu X; Dong GX; Schmidt-KÄntzel A; Zhang XL; Zhuang Y; Fang R; Sun X; Hu XS; Zhang TY; Yang HD; Zhang DL; Marker L; Jiang ZF; Li R; Luo SJ

**Abstract**

-

**Additional References**

**RELATED GEPHE**

**Related Genes**

1 (SLC45A2)

**Related Haplotypes**

No matches found.

**EXTERNAL LINKS**

**COMMENTS**

@Epistasis in captivity the double homozygotes with the Agouti allele underlie the Snow White phenotype <https://omia.org/OMIA002159/9694/>