



# GENETIC TEST REPORT



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REPORT GENERATED:  
10/02/2021

**BAY COLT**

**DE GAULLE EX AVIENUS**

**DOB 5TH OCTOBER 2019**

**Melbourne Premier Yearling Sale**

**762**



**Quilly Park**<sup>TM</sup>

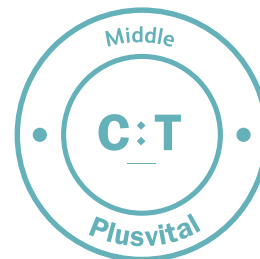
**Creating Champions**

# Speed Gene Test

## Result: Australia/New Zealand

### Horse Details

Horse Name	Sire	Dam
	De Gaulle	Avienus
Sample ID	Sex	Country of Birth
QP3	Male	Australia
Year of Birth	Month of Birth	
2019	October	

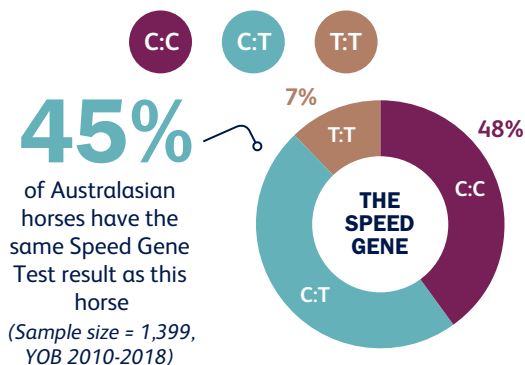


- ✓ C:T horses will likely achieve their optimal performance if trained and raced as a middle distance type
- ✓ Recommend targeting 1,200m+ races as a two-year-old, and 1,400-2,199m races as an older horse
- ✓ Can breed sprint, middle distance or staying types depending on mare/sire

### About the Speed Gene Test

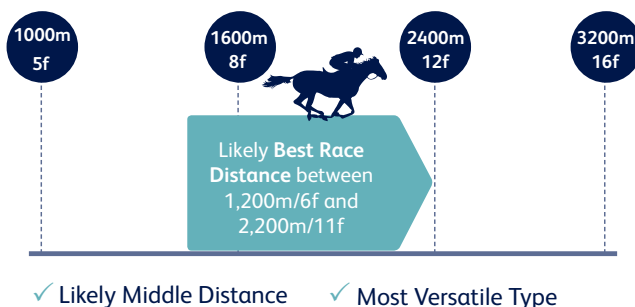
- The Speed Gene Test examines differences in the myostatin gene to make a prediction of a horse's best race distance
- The myostatin gene is a major determinant of race distance aptitude because it influences:
  - Skeletal muscle growth
  - The proportion of fast twitch (glycolytic, Type IIB) muscle fibres required for short bursts of power and the proportion of slow twitch (oxidative, Type I) muscle fibre types required for stamina
- Race distance aptitude is almost entirely determined by the genetic make-up of this gene
- Test result is based on the combination of "C" and "T" genetic variants, one inherited from each parent

There are three possible combinations of the genetic variants:



### Use this result for Horses in Training

#### HORSES IN TRAINING



**69%**

69% of C:T horses have a Best Race Distance of between 1,200m/6f and 2,200m/11f  
(Group/Listed races)

By comparison with T:T horses at the same age, two-year-old C:T horses develop:

**2%** More muscle mass

**4.8%** More Type IIB muscle (fast-twitch) fibres

Observations of this result for Horses In Training

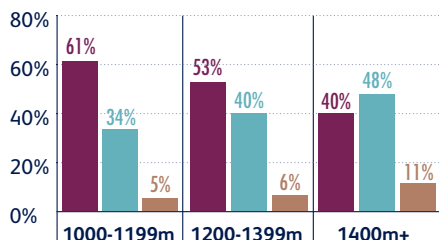
# Speed Gene Test

Result: Australia/New Zealand

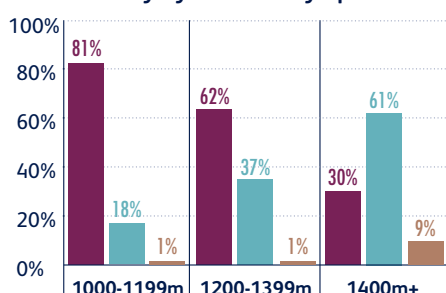
## Observations of this result for Horses In Training

### TWO-YEAR-OLDS

#### % of Runners by distance by Speed Gene type



#### % of Prize Money by distance by Speed Gene type



Flat races, Australia & New Zealand, 2010-2018 (Sample size = 715)

### Two-year-old C:T horses perform best at 1400m+

- At 1000-1199m, C:T horses under-performed, winning 18 % of the prize money available, despite providing 34 % of the runners at this distance
- At 1200-1399m, C:T horses under-performed, winning 37 % of the prize money available, despite providing 40 % of the runners at this distance
- At 1400m+, C:T horses over-performed, winning 61 % of the prize money available, providing 48 % of the runners at this distance

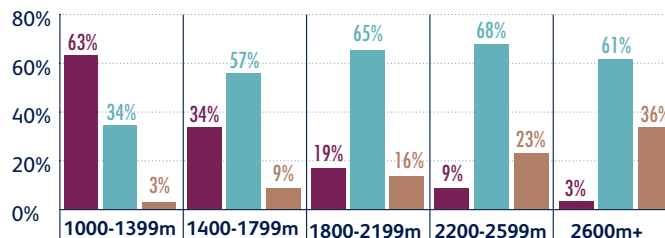
### Three-year-old and older C:T horses perform best at 1400m-2599m

- At 1000-1399m, C:T horses under-performed, winning 24 % of the prize money available, despite providing 34 % of the runners at this distance
- At 1400-2599m, C:T horses over-performed, winning 68 % of the prize money available, despite providing 60 % of the runners at this distance
- At 2600m+, C:T horses under-performed, winning 59 % of the prize money available, despite providing 61 % of the runners at this distance

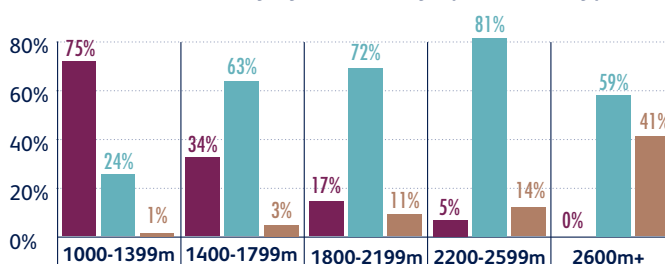
### Strike Rate and % Winners

- A higher percentage of C:T horses won at 1400-2399m races relative to C:C and T:T horses
- C:T horses recorded a higher strike rate than C:C and T:T horses in races at 1400-2399m, outperforming T:T horses at shorter distances

#### % of Runners by distance by Speed Gene type



#### % of Prize Money by distance by Speed Gene type



Flat races, Australia & New Zealand, 2010-2018 (Sample size = 1,740)

Use this result for Young Stock | Breeding