Racing GenePak (Australia/New Zealand)
About Us

Plusvital is the world’s leading provider of genetic testing to the Thoroughbred industry. Powered by Equinome’s cutting edge genomic tools, we provide tests which analyse the DNA of the horse to predict optimum race distance, optimum race surface and performance potential. We assist leading trainers, owners and breeders in all of the major Thoroughbred regions around the world from our headquarters in Dublin, Ireland.

In 2017, Plusvital have launched the Plusvital Racing GenePak, which provides objective, scientific information to support training and race entry decisions.

The Speed Gene Test

The Speed Gene Test was launched by Equinome in 2010 and since then has grown to be the most firmly established genetic tool for Thoroughbred horses around the globe. The test examines changes in the DNA within the “Myostatin” gene, which is responsible for muscle development and muscle fibre type.

The test then categorises horses into three distinctive types:
- **C:C** Sprint/Mile Types (1,000m - 1,600m)
- **C:T** Middle Distance Types (1,200m - 2,200m)
- **T:T** Staying Types (1,600m+)

**Speed Gene Test results can be used to:**
- Determine optimum race distance
- Inform expectations on 2-year-old performance
- Increase strike rates and earnings through optimised training and racing decisions.

The Distance Plus Test

The Distance Plus Test refines the predicted optimum race distance to within a couple of hundred metres, sub-categorising the Speed Gene types into “Short” or “Long” (e.g. C:T – Short or C:T – Long).

This test, launched in 2016, looks at 50,000 genetic markers to provide an enhanced level of information when combined with the Speed Gene Test. As with all technologies, the products developed by Plusvital scientists continue to evolve and improve.

**Average Best Race Distance**
(179 Group/Listed Winning Horses - AUS/NZ Only)

<table>
<thead>
<tr>
<th>Race Distance</th>
<th>C:C</th>
<th>C:T</th>
<th>T:T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000m</td>
<td>Short</td>
<td>Long</td>
<td></td>
</tr>
<tr>
<td>1,600m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,400m</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each genetic type has equal potential to be an elite racehorse, but they get there in very different ways:
- **C:C**s tend be earlier maturing and are better suited to the shorter 2-year-old distances with higher strike rates and earnings at this age.
- **C:T**s are the most versatile type; they can perform well over shorter distances as 2-year-olds and then progress to run over middle distances as 3-year-olds and beyond.
- **T:T**s tend to be later maturing and are less suited to 2-year-old racing. However, they develop as three-year-olds and have equal lifetime earning potential to CC types.

Test Prices

<table>
<thead>
<tr>
<th>Test Description</th>
<th>AUD</th>
<th>NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed Gene Test Only</td>
<td>$395</td>
<td>$435</td>
</tr>
<tr>
<td>Racing GenePak (Speed Gene + Distance Plus)</td>
<td>$595</td>
<td>$655</td>
</tr>
</tbody>
</table>

*95%+ of horses will have their best distance within the Speed Gene Test range.*
Why Test Your Racehorse?

Using the Speed Gene test and Distance Plus Genetic test to identify the best distance range from when the horse arrives in the yard means:

1. **Optimise Training & Race Selection**
   Train a horse to its strengths resulting in higher performance and fewer injuries.

2. **Improved Strike Rates**
   Win more races and increase earnings because horses are racing at their best trip earlier.

3. **Happier Owners**
   Manage your owner’s expectations with objective scientific information on likely two-year-old performance, best trip and race selection.

---

"This technology is another outstanding layer of information a trainer can use when assessing a horse. Shamus Award came into the stable as a Snitzel colt that you think would probably be a precocious horse, but he came back as a C:T, so that made it easy to send him to the Caulfield Guineas and then the Cox Plate as a three-year-old."

- Danny O’Brien, Group 1 winning Australian Trainer.

---

**The Testing Process**

- **Client takes blood sample from individual in a purple top test tube**
- **Samples are sent to Plusvital labs, clearly labelled, where they are processed**
- **DNA is extracted from the blood, analysed and results sent back to sales team**
- **Your sales executive will arrange a personalised results consultation**
FAQs

Q: How do I explain this additional cost to owners?
A: The use of these technologies eliminates overheads in the long run by reducing the need to try horses over distances they prove to be unsuited to.

Q: How do I manage owner expectations with this information?
A: This information could also be used to support your judgement on the ideal trip or likely two-year-old performance where this might not match expectations based on pedigree or physical type.

Q: Does this test tell me if a horse is more likely to be elite?
A: These tests are not designed to identify elite performance potential, but rather identify the conditions under which each individual horse can perform to its maximum potential.

Q: How do I incorporate this into the training regime?
A: Like all other training aids, this information can be incorporated into the regime by using it as a reference point to support or inform key decisions such as race entries.

Q: Can’t I infer this information from the pedigree?
A: Genetic testing and pedigree go hand in hand as the tests will give a definitive answer to what we are already attempting to infer from pedigree, but pedigree alone can often be misleading.

Q: In the past, I have trained full siblings that wanted completely different distances. How is this related to genetics?
A: As the genes are inherited in pairs, one from the dam and one from the sire, it is very common for full siblings to inherit different combinations of genes and thus be completely different types of racehorses. This is the reason why genetic testing is more accurate than pedigree alone.

Q: How many horses have been tested to date?
A: As the world’s leading provider of genetic testing to the Thoroughbred industry, Plusvital has tested approximately 15,000 horses to date in developing tests predicting optimum race distance, optimum race surface, likelihood to become an elite racehorse and many more, across all the major Thoroughbred hubs around the world.

We use the Speed Gene Test to guide us as to the distance range our horses will be best suited at. It allows training goals to be better targeted to the horse's stamina capabilities.

- Neville Duncan, Group 1 winning Owner/Breeder, Oakland Park Stud, Western Australia.

How To Order

AUS / NZ: +61 499585951
US: +1 8593513217
IRE / UK / EU: +353 (0) 860463187
INTERNATIONAL: +353 (0) 86 0416121

amandine.lefevre@plusvital.com