



Capturing
nature's power



MecobalActive®

A new dimension

in **cognitive** and
physical
performance

WE ARE HTBA

**A 45+ years heritage pioneering the
development of flavonoids and vitamin B12
active forms**

Pharmaceuticals

Functional Health

Taste Modulation

Animal Nutrition



Meeting the needs of today's 'health proactive' consumer



Focus on Health and Wellbeing



The global cost of healthcare is creating a more proactive approach both to health and wellbeing. The integration of tech is shaping how the markets develop.



Savvy and Self-Sufficient



Digitally empowered consumers are increasingly willing and able to **self-serve and self-support** on aspects such as health, finance, fitness and cooking at home.



Positive Best



With **feeling well** the key driver for pursuing a healthier lifestyle, consumers are adopting strategies to help them look and feel their **mental and emotional best**.

1 in 3

consumers globally have taken more action to be more **self-sufficient** over the past 12 months in areas such as health and finance

61%

of consumers globally say they are somewhat/very self sufficient when it comes to health

Feeling **mentally and emotionally well** is also the **#1 health goal** for consumers, followed by **vitality and energy**

The narrative around B12 is evolving...



It's essential for everyone.

It plays a proactive role in supporting **brain function, energy levels** and overall **mental clarity**.



A new dimension in cognitive and physical performance

*EFSA health claims Directive 2002/46/EC

Approved, along with other EFSA Health Claims in EU *
and also being used as products claims by brands in the US.

MecobalActive® is **bioidentical** and ready to work



MecobalActive® is HTBA's proprietary form of **methylcobalamin** that's **bioidentical** and **active**, unlike other B12 forms.

A solid red octagon containing white text.

Higher retention
in tissues

A solid red octagon containing white text.

Superior
bioavailability

A solid red octagon containing white text.

Longer lasting
in body

HTBA is the only company in the EU producing all B12 active forms in Europe.

Powered by green chemistry



Thanks to our patented green manufacturing processes, MecobalActive® is precisely engineered to get to work quickly and effectively in the body.

Fewer impurities

Improved safety profile

Pure methylcobalamin

Higher purity and efficacy

50% less water than other vitamin B12 ingredients

Higher concentration and efficacy with the same dosage

Small particle size

Increased absorption and bioavailability

Longer shelf life

5 years — up to 2.5 x longer than other available options

Introducing
NEW
scientific data
for MecobalActive®

Continuing to demonstrate the value of MecobalActive®

Acute supplementation with MecobalActive® significantly improves cognitive and physical performance in healthy individuals without vitamin B12 deficiency compared to a placebo.



Study protocol

Participants: Healthy male amateur cyclists, aged 18-45 years, no health conditions* or prior supplementation

Design: Triple-blind, randomized, crossover

Study arms: 1 mg MecobalActive® vs. placebo

Sample size: 18

Timeframe: Three-day acute load phase

Evaluation parameters:

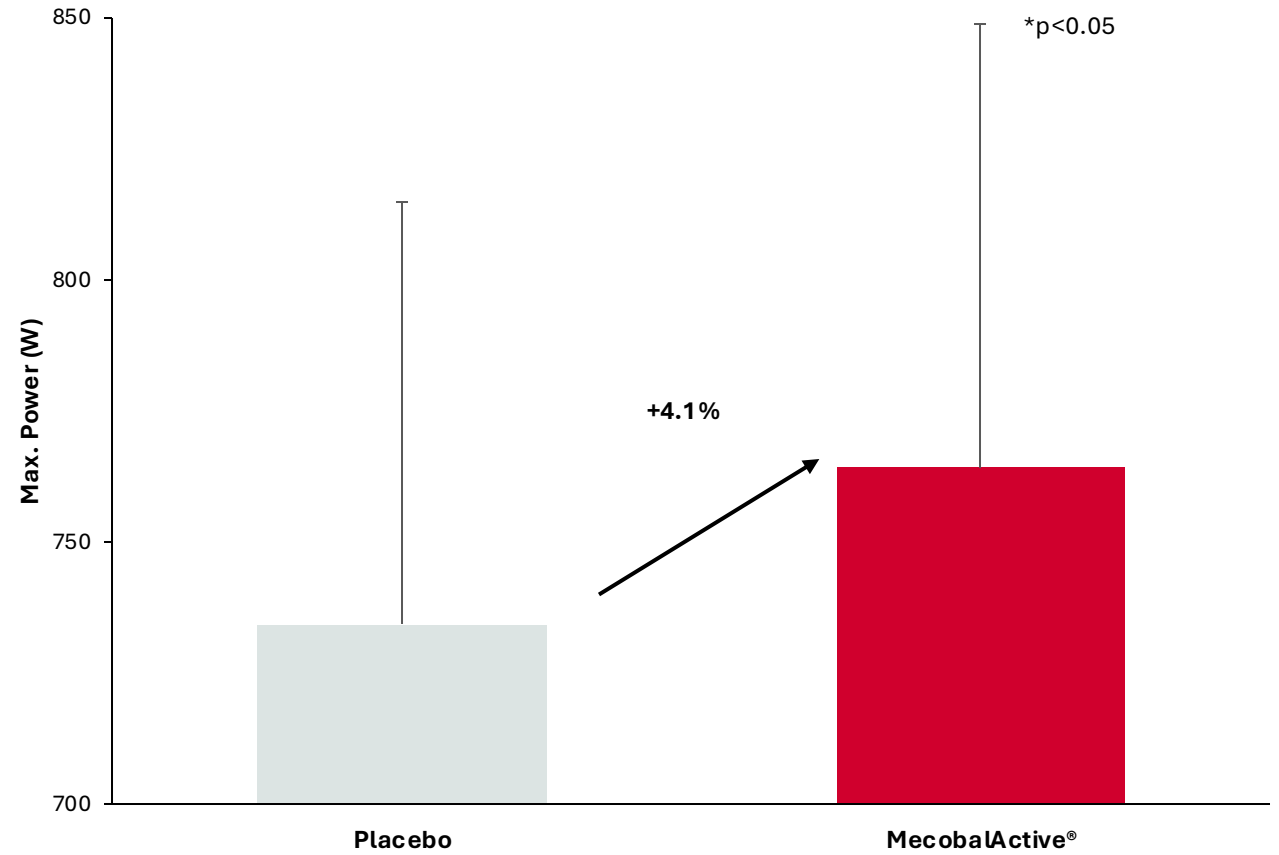
- Physical power and fatigue**
- Cognitive performance***
- Pre- and post- effort blood parameters

Study location: Spain





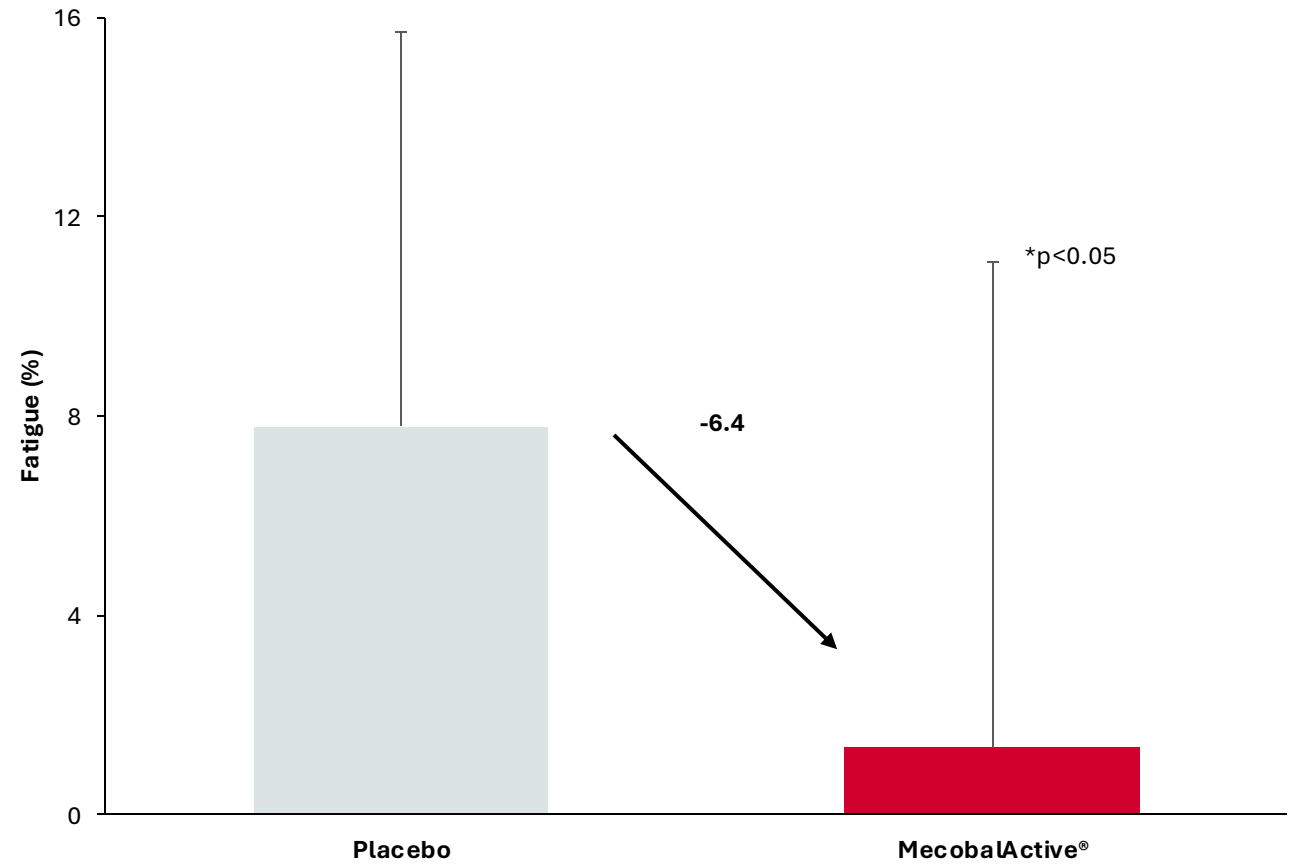
MecobaActive® boosts muscle power



Maximum power found after **5 physical sprints**



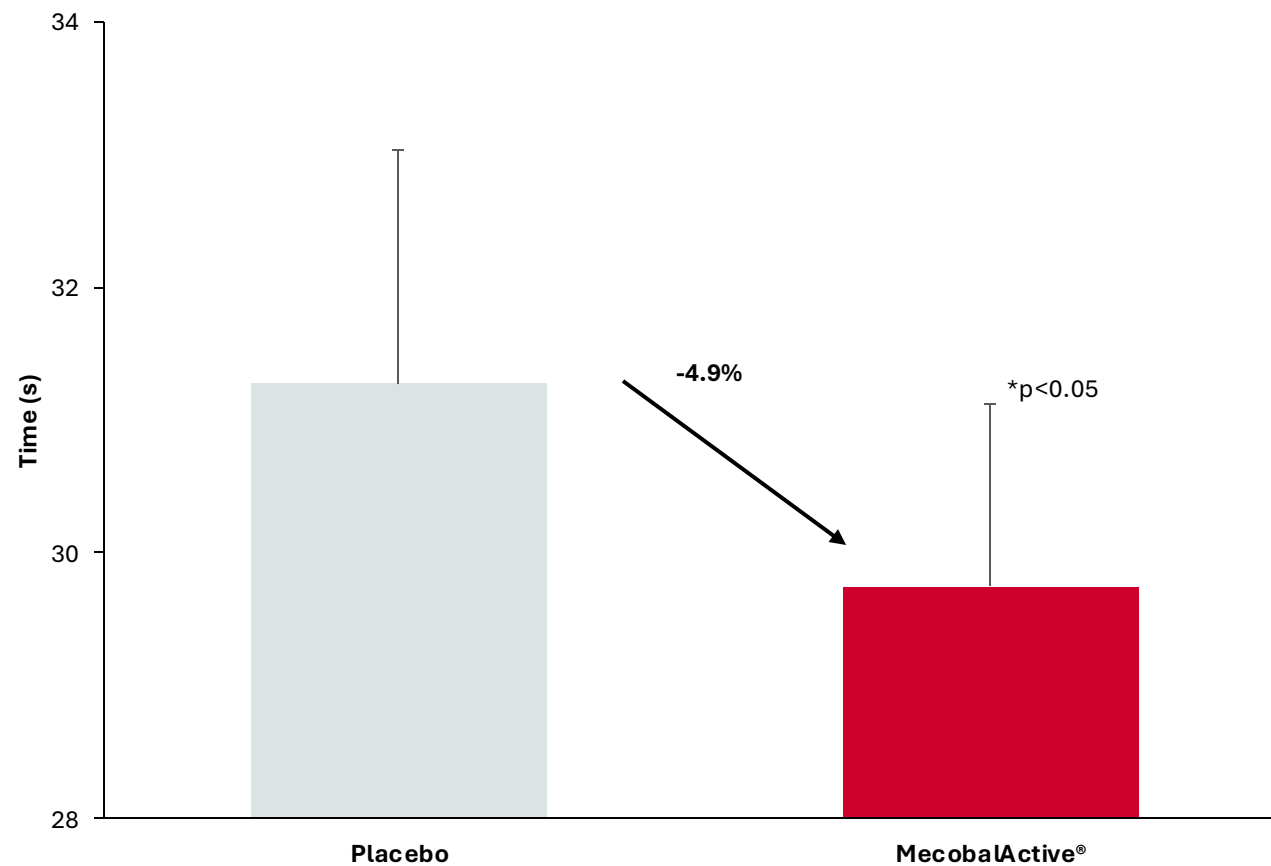
MecobaActive® reduces fatigue



Differences found in fatigue after physical tests



MecobaActive® improves cognitive performance



Reduction in total response times

Intake during 3 consecutive days of MecobalActive®

htba

**Improved power
during a Wingate test
versus placebo**

**Reduced fatigue
during a Wingate test
versus placebo**

**Improved total time to
solve mental agility test
in resting conditions
versus placebo**



The key takeaway?

MecobalActive® delivers cognitive and physical performance benefits—even for healthy, active individuals.

How do we advance vitamin B12 innovation?

htba



Nature-led, health focused

Since our inception, nature has been our inspiration for improving human and animal wellbeing. We harness the power of nature to craft essential ingredients that positively impact health and well-being.

Creative partnerships

Enhance your product development and business growth through tailored solutions and collaborative technical and regulatory support.

Consumer-driven innovation

With a finger on the pulse, we stay attuned to consumer trends, ensuring the end user remains at the forefront of all that we do. Creating targeted solutions, we work with our partners to address evolving market needs.



Teresa Pellicer

Biotechnology Manager HTBA

tpellicer@htba.com

Teresa Pellicer, PhD



Capturing
nature's power

Curious about MecobalActive® or our other active vitamin B12 ingredients?

Meet the HTBA team at **Booth 3M61**

Visit **www.htba.com**



Capturing
nature's power

Thank you!