

BENEFITS OF CHROMIUM

KemTRACE[®] Chromium is a highly bioavailable, organic source of chromium propionate that helps stabilize insulin receptors in animals, improving glucose use and reducing the negative impacts of stress. Every cell in the horse relies on glucose to fuel its function and growth. Maximizing each cell's utilization of glucose results in improved overall health and performance.

RESPONSE BASED ON HIERARCHICAL NEEDS

Approximately 60% of a mammal's daily energy intake is for basal metabolism — or the basic processes needed for life, such as digestion and respiration. Any additional energy can be stored or used for immune function, physical activity or growth. By mobilizing more blood glucose into tissue, feeding supplemental chromium can result in improved health, performance and energy based on the animal's hierarchy of needs.



INSULIN IS THE KEY

Insulin plays a key role in optimal cell function, “unlocking the door” to the cell so blood glucose can enter and be used for energy.¹

Chromium improves insulin function by increasing insulin receptor activation, leading to efficient clearance of glucose from the bloodstream.²

By increasing the availability of glucose, the horse can more efficiently use energy for body upkeep, health, growth and performance.

8X INSULIN RECEPTOR
ACTIVATION³

KemTRACE[®] Chromium

ACTIVATES INSULIN RECEPTORS > **MORE GLUCOSE ENTERS CELLS** > **MORE ENERGY AVAILABLE** > **IMPROVED HEALTH & PERFORMANCE**

LOWERING ELEVATED BLOOD GLUCOSE LEVELS

When a horse becomes insulin-resistant due to metabolic issues, blood glucose levels can stay elevated for extended periods. This leads to systemic inflammation, which can prolong insulin resistance.⁴ **By improving insulin sensitivity and clearing glucose from the bloodstream, chromium may improve health.**



IMPROVED IMMUNE FUNCTION

Activated immune cells are completely reliant on glucose for energy.⁵ **Increased glucose uptake by the immune cells may help the horse mount an immune response** even under disease or pathogen challenges.



REDUCED STRESS

Stress has a tremendous impact on the health and performance of the horse. Stressors include extreme weather, diet changes, travel, exercise, disease exposure and more. When under stress, horses release cortisol — a stress hormone — which may result in aggressive behavior, suppression of the immune system and increased risk of gastric ulcers, colic or diarrhea.⁶ **Chromium has been shown to reduce the levels of cortisol, thereby reducing the negative impacts of stress.**⁷



IMPROVED PERFORMANCE

Low muscle glycogen levels in horses (less than 50% of normal) can impair physical performance. **Increasing the rate of glucose uptake in skeletal muscle cells in order to replenish their glycogen stores may improve performance.** Research indicates that urinary excretion of chromium by human athletes is higher during exercise than when sedentary, indicating chromium's role in energy use.^{8,9,10}

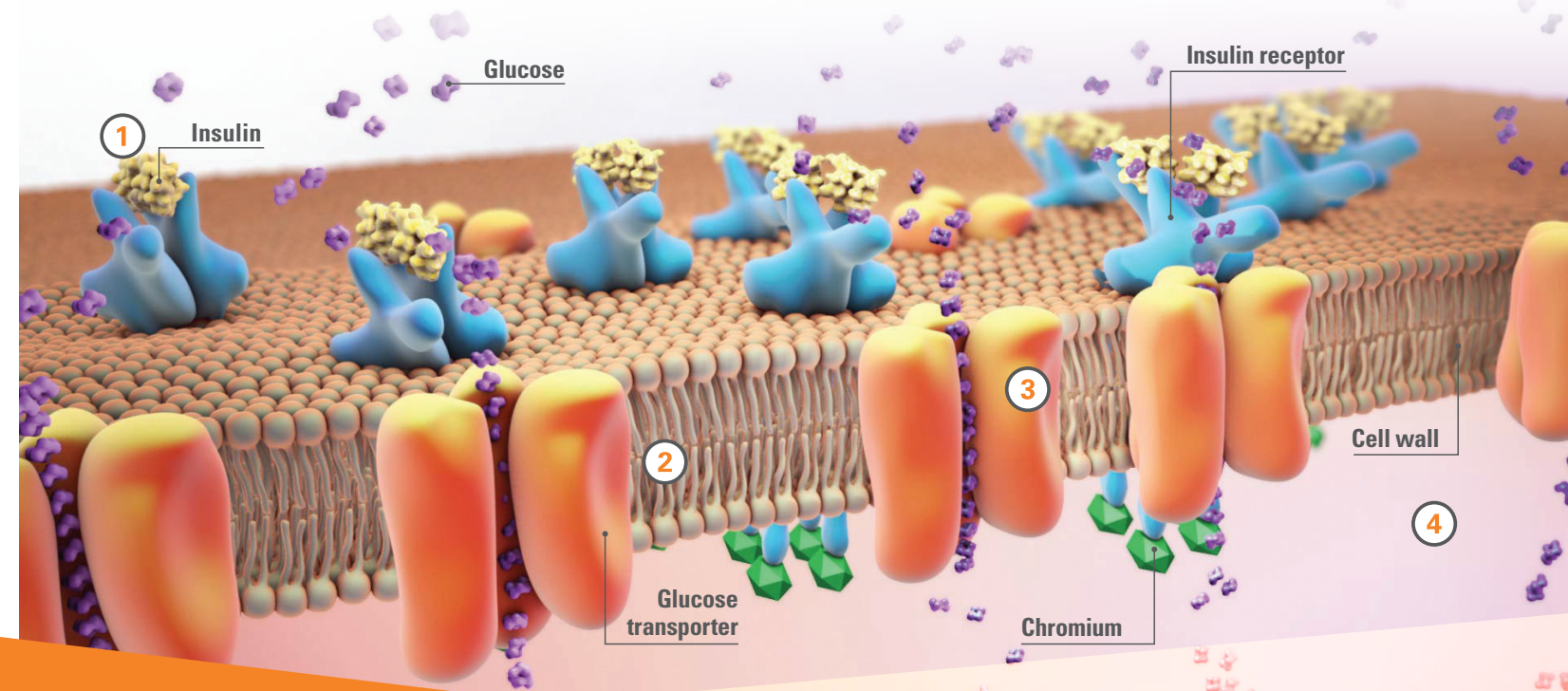
KemTRACE® CHROMIUM MODE OF ACTION

1 Insulin stimulates glucose uptake.¹¹

2 Readily available chromium from KemTRACE® Chromium optimizes the activation of the insulin receptor.

3 The cell uptakes glucose.

4 The additional glucose allows more energy to be available for proper cell function, which can boost immunity, growth, health and performance.



**KEMIN
RESEARCH**

20
YEARS

**50 TRIALS
MILLIONS
OF DOLLARS**

WHY BIOAVAILABILITY MATTERS

The chemical form of a nutrient impacts the degree to which it can be absorbed and used to support metabolic processes in the animal. For a horse to absorb minerals — such as chromium — the mineral must solubilize or dissociate in the digestive tract. Everyday feedstuffs contain varying levels of chromium, however much of it is not bioavailable and does not benefit the horse.¹² KemTRACE Chromium is highly bioavailable and backed by millions of dollars and decades of research.

WHY KemTRACE CHROMIUM

KemTRACE Chromium has been approved by the U.S. Food and Drug Administration (FDA) through the rigorous Food Additive Petition (FAP) process for its use in horse diets. Any other chromium propionate source that enters the market is required to meet the specifications listed in the regulation.



**KemTRACE Chromium is the only FDA-reviewed
source of chromium for horses on the market today.**



Learn more about how KemTRACE Chromium can
help your horse at [Kemin.com/ChromiumEQ](https://www.kemin.com/ChromiumEQ).

1-800-752-2864

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