# Can Your Product Make These Claims?

# If you formulate with Oryzatein® Rice Protein, and only Oryzatein, you can!

Axiom Foods has our customers' backs. Not only have we invested time and money in clinical trials which ensure you can make these claims, we have patented those claims. This makes it possible for Axiom to ensure your competitors using other rice proteins can't make the same claims you do.

# Are you formulating any products in these categories?

- ✓ Allergen-Friendly/High Protein
- ✓ Digestive Health/IBS
- ✓ General Wellness
- ✓ Healthy Aging
- √ Heart Health
- ✓ Immunity
- √ Muscle Maintenance/Mobility
- ✓ Post Workout/Recovery
- ✓ Sports Nutrition/Performance/ Endurance
- √ Weight Loss



# Then formulate with Oryzatein® Rice Protein to Get these Claims:

Patented Claims No Other Rice Protein Comes With:

#### Can Help...

- √ Build Muscles
- ✓ Increase Power
- ✓ Increase Strength
- ✓ Increase Endurance
- √ Exercise Recovery

# Claims Oryzatein® Rice Protein In General Can Help With:

#### Can Help...

- ✓ Curb Hunger
- ✓ Easily Digested
- √ Cardiovascular Health
- ✓ Immunity



# To Evidence-Based Nutritional & Health Benefits of Oryzatein® Rice Protein

As consumers become more health savvy and environmentally conscious, the demand for plant-based, protein-rich products will continue to surge. Oryzatein® rice protein, at 80-90% protein and being non-GMO, FDA GRAS and free from all major allergens is the perfect ingredient to formulate with either on its own or blended with other plant proteins. Most importantly, Oryzatein® is the ONLY clinically studied and patented rice protein. Here are 15 evidence-based benefits of rice protein:

### Two Clinical Studies

One HEAD TURNING Result Helping Even the Playing Field

#### 2013

**Nutrition Journal\*** 

8 weeks

Double blind study

24 collegiate athletes

24g of rice or whey protein 2x/day

Periodized resistance training 3x/week

Both Oryzatein\* rice and whey protein equally increased lean muscle mass, power & strength, plus helped exercise recovery

#### 2018

**EC Nutrition Journal\*** 

6 weeks

Prospective pilot trial study

11 pro MMA athletes

25g of rice or whey protein 3x/day

MMA training 2x/day, 6 days/week

Both Oryzatein® rice and whey equally maintained lean muscle mass

Oryzatein\* is equally as effective as whey protein for increasing and maintaining lean muscle mass

# 1. Oryzatein<sup>®</sup> Rice Protein Builds and Maintains Muscle Mass as Good as Whey

✓ Sports Nutrition ✓ Post Workout/Recovery

√ Muscle Maintenance/Mobility
 √ Healthy Aging

Two studies to date have shown that supplementing with specifically Oryzatein rice protein post-workout induced significant gains in muscle mass<sup>1</sup> in collegiate athletes and maintained muscle mass<sup>2</sup> in professional athletes as well as whey protein did. There was no benefit of whey protein over Oryzatein rice protein in either study.

# 2. Oryzatein® Rice Protein Increases Power, Strength and Endurance as Good as Whey

✓ Sports Nutrition ✓ Post Workout/Recovery

√ Muscle Maintenance/Mobility
 √ Healthy Aging

Athletes supplementing with Oryzatein rice protein or whey protein significantly improved their 1 repetition maximum bench press, 1 repetition maximum leg press and wingate peak power from baseline to 8 weeks with no differences between groups.<sup>1</sup>

# 3. Oryzatein<sup>®</sup> Rice Protein Aids Exercise Recovery as Good as Whey

✓ Sports Nutrition ✓ Post Workout/Recovery

√ Muscle Maintenance/Mobility
 √ Healthy Aging

No differences were observed in perceived soreness, perceived readiness to train and perceived recovery 48 hours post-exercise between groups of athletes supplementing with Oryzatein rice protein or whey protein.<sup>1</sup>

# 4. Leucine Uptake is Faster from Oryzatein® Rice Protein than Whey Protein

- √ Sports Nutrition 
  √ Post Workout/Recovery
- ✓ Muscle Maintenance/Mobility
  ✓ Healthy Aging

Leucine, a key amino acid for triggering muscle protein synthesis, peaked in the bloodstream approximately 18 minutes faster in subjects ingesting Oryzatein rice protein than subjects ingesting whey protein.<sup>3</sup>

# Winning the Absorption Race





Leucine, the key amino acid for muscle building, absorbs **almost 30% faster** from Oryzatein rice protein than whey protein.\*

# 5. Oryzatein® Rice Protein is Highly Digestible

#### ✓ Digestive Health ✓ Allergen-friendly

Plant proteins are generally regarded as having low digestibility when compared to animal-based proteins. The true fecal digestibility of rice protein has been documented at 87% in animal studies<sup>4</sup>. Despite a slightly lower digestibility of Oryzatein rice protein vs whey, that doesn't mean the amino acids are absorbed any less, as there were no significant differences seen in total amino acid concentration in the blood between human subjects consuming Oryzatein rice protein or whey protein.<sup>3</sup>

# 6. Oryzatein® Rice Protein May Help Prevent Sarcopenia

#### √ Muscle Maintenance/Mobility √ Healthy Aging

Consumption of Oryzatein® rice protein, paired with adequate resistance exercise can help to build or maintain muscle mass. Doing so can help to offset the age-related loss of muscle in people over the age of 30, particularly the 70+ million Baby Boomers in the US.

# 7. Oryzatein® Rice Protein May Be Beneficial For Inflammatory Bowel Conditions

#### ✓ Digestive Health ✓ Allergen-friendly

Oryzatein® rice protein is free from all major allergens and as such may help provide sustenance for those with compromised digestive systems. Oryzatein® is also lab-tested to be free from FODMAPs (fermentable oligosaccharides, disaccharides, monosaccharides and polyols) at any serving size, and a low-FODMAP diet has been shown to improve symptoms of Irritable Bowel Syndrome, a disorder that affects 1 out of 10 people in the US each year.

# 8. Oryzatein® Rice Protein Provides More Than 3x the Arginine in Whey Protein

- √ Heart Health
   √ Sports Nutrition
- ✓ Post Workout/Recovery

Arginine is a conditionally essential amino acid which may provide benefit for heart health and exercise recovery. Arginine converts to nitric oxide (NO) in the body which then helps to regulate blood pressure, blood flow and circulation. Arginine also increases blood flow to wounds and is believed to stimulate production of hormones like IGF-1 and growth hormone which in turn helps to build new tissue.

#### 9. Oryzatein® Rice Protein Aids Satiety

#### √ Weight Loss

As a rich source of dietary protein, Oryzatein rice protein can help to promote fullness and may reduce hunger between meals.

# 10. Oryzatein® Rice Protein May Help Reduce Weight and Body Fat

#### √ Weight Loss

Protein-rich diets are recommended for weight loss because they can support lean body mass, boost metabolism, and help reduce hunger. Oryzatein rice protein is a low fat, cholesterol-free rich source of protein which can be used as part of a high-protein diet. Athletes consuming Oryzatein rice protein lost slightly more body fat than those consuming whey protein, though the difference between groups was not significant¹. This trend was also seen in professional athletes consuming Oryzatein rice protein, though again, the difference between rice and whey was not significant.²

















# 11. Oryzatein® Rice Protein May Improve Lipid Profiles

#### √ Heart Health ✓ General Wellness

Compared with casein, a dairy-based protein, Oryzatein rice protein ingestion reduced triglyceride, total cholesterol, LDL cholesterol and VLDL cholesterol concentrations in one animal based study.<sup>6</sup> Two additional studies also showed reduced cholesterol levels in rodents ingesting Oryzatein rice protein, suggesting that it's method of action is by inhibiting cholesterol absorption.<sup>7,8</sup>

# 12. Oryzatein® Rice Protein May Help Control Blood Sugar

#### ✓ Diabetic ✓ Weight Loss

Ingesting dietary protein as part of a carbohydrate-rich meal helps to offset spikes in blood sugar. As a rich source of protein, Oryzatein rice protein may help to stabilize the insulin response in carbohydrate-based foods.

# 13. Oryzatein<sup>®</sup> Rice Protein Supports Healthy Hair. Skin and Nails

#### √ Beauty √ Healthy Aging

Adequate dietary protein is the foundation for building healthy hair, skin and nails. Being a rich source of protein, Oryzatein rice protein can provide the body with the amino acids necessary to aid the production of collagen, elastin and keratin, which support the integrity of hair, skin and nails.

# 14. Oryzatein® Rice Protein May Help to Support the Immune System

#### **√** Immunity

Antibodies are made from the amino acids in dietary protein, so they play an important role in regulating the body's immune response. Not consuming enough dietary protein such as Oryzatein rice protein can weaken the immune system.

#### 15. Oryzatein® SG-BN Rice Protein May Improve Oxidative Stability of Emulsified Food and Cosmetic Products

#### √ Functional Product Shelf-life

Suspension grade Oryzatein SG-BN rice protein showed consistent ability to suppress lipid oxidation in oil-in-water emulsions and thereby holds promise as a natural antioxidant and replacement for synthetic antioxidants like BHA (butylated hydroxyanisole) and BHT (buttylated hydroxytoluene).<sup>5</sup>

#### References:

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- 2) Kalman DS, Escalante A, Hewlings SJ, Willoughby DS. The body composition effects of extra protein in elite mixed martial artists undergoing frequent training over a six-week period. EC Nutrition. 2018;13(6).
- 3) Purpura M, Lowery RP, Joy JM, et al. A comparison of blood amino-acid concentrations following ingestion of Oryzatein rice and whey protein isolate: a double-blind crossover study. Journal of Nutrition and Health Sciences. 2014;1(3). doi:10.15744/2393-9060.1.306.
- 4) Morita T. Mass production method for rice protein isolate and nutritional evaluation. Journal of Food Science. 1993;58(6):1393-1396.
- 5) Bakota EL, Winkler-Moser JK. Differences in antioxidant activity between two Oryzatein rice protein concentrates in an oil-in-water emulsion. European Journal of Lipid Science and Technology. 2017;119. doi:10.1002/ejlt.201600421.
- 6) Yang L, Chen J-H, Lv J, et al. Rice protein improves adiposity, body weight and reduces lipid levels in rats through modification of triglyceride metabolism. Lipids in Health and Disease. 2012;11(24). doi:10.1186/1476-511X-11-24.
- 7) Yang L, Chen J, Xu T, et al. Rice protein extracted by different methods affects cholesterol metabolism in rats due to its lower digestibility. International Journal of Molecular Sciences. 2011;12:7594-7608. doi:10.3390/ijms12117594.
- 8) Morita T, Oh-hashi A, Kasaoka S, Ikai M, Kiriyama S. rice protein isolates produces by the two different methods lower serum cholesterol concentration in rats compared with casein. Journal of the Science of Food and Agriculture. 1996;71:415-424.

Please note that this does not constitute legal advice and Axiom Foods recommends that all finished product manufacturers seek legal review of product labels, including the ingredients panel.

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#### Find study links at AxiomFoods.com/studies

Oryzatein® rice protein quality certification and analysis, plus spec sheets are available upon request at:

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