



hermes consilium



portfolio.

clinically
supported
ingredients





INDICATIONS
ENERGY SUPPORT
SPORT NUTRITION

NEWCAFF™

microcapsules

novel caffeine delivery system which has been designed to mask the bitter taste of caffeine and provide sustained release

- **supplier**
Lipofoods
- **product grade**
granulated powder suitable for powder blends, bars, gels, chewables, milkshakers and different kind of dietary supplements
- **daily dose**
up to 200 mg caffeine per day
- **stability**
24 months shelf life
- **certifications**
Halal



advantages:

- clean non-bitter taste
- **controlled release**
helps to avoid caffeine crash few hours after intake
- high caffeine concentration
- cleaner formulas

mechanisms of action:

- caffeine is a central nervous system stimulant
- **improves alertness, memory**, decreases fatigue, improve mental performance





Internal study:

- **Overcoming caffeine bitter taste while providing its sustained release via microencapsulation, 2017:**
 - **In vitro release profile:** microencapsulated caffeine showed a good retention and an improved in vitro sustained release profile when compared with unencapsulated caffeine
 - **Sensory analysis:** masking of the bitter taste of powdered caffeine coated with lipids



product examples





INDICATIONS
ENERGY SUPPORT
COGNITIVE HEALTH
SPORTS NUTRITION
STRESS MANAGEMENT

MAGSHAPE™

microcapsules

highly concentrated microencapsulated magnesium source for products effective at restoring and maintaining a healthy level of this mineral in human cells and bones

- **supplier**
Lipofoods
- **product grade**
powder suitable for capsules, tablets, chewables and orosoluble powder products
- **daily dose**
Recommended Daily Allowance (RDA) for magnesium in the European Union is 375 mg
- **stability**
18 months shelf life
- **certificates**
Halal, Kosher, Vegetarian, Vegan

advantages:

- **highly concentrated magnesium (30%)**
- **microencapsulation technology** provides improved flowability and compressibility
- **in vitro results show relaxation effect on the nervous transmission**
inhibits release of neurotransmitter noradrenaline
- **improves muscular function thanks to relaxation**
the muscle relaxes more quickly

mechanisms of action:

magnesium contributes to:

- **reduction** of tiredness and fatigue
- **electrolyte** balance
- **normal functioning of the nervous system** and psychological function
- **normal muscle function** and normal energy-yielding metabolism
- **maintenance of normal bones and teeth**
- **has a role in the process** of cell division



Turmacin™

water-soluble composition from turmeric (*Curcuma longa*), standardized to bioactive polysaccharides called 'turmerosaccharides' and without curcuminoids

- **supplier**
Natural Remedies
- **product grade**
powder suitable for shots, tablets, lozenges, spray, gummies, biscuits, capsules, candies, creams
- **daily dose**
500-1000 mg
- **stability**
24 months shelf life
- **certificates**
non-GMO Project verified, clean label, Kosher, Halal



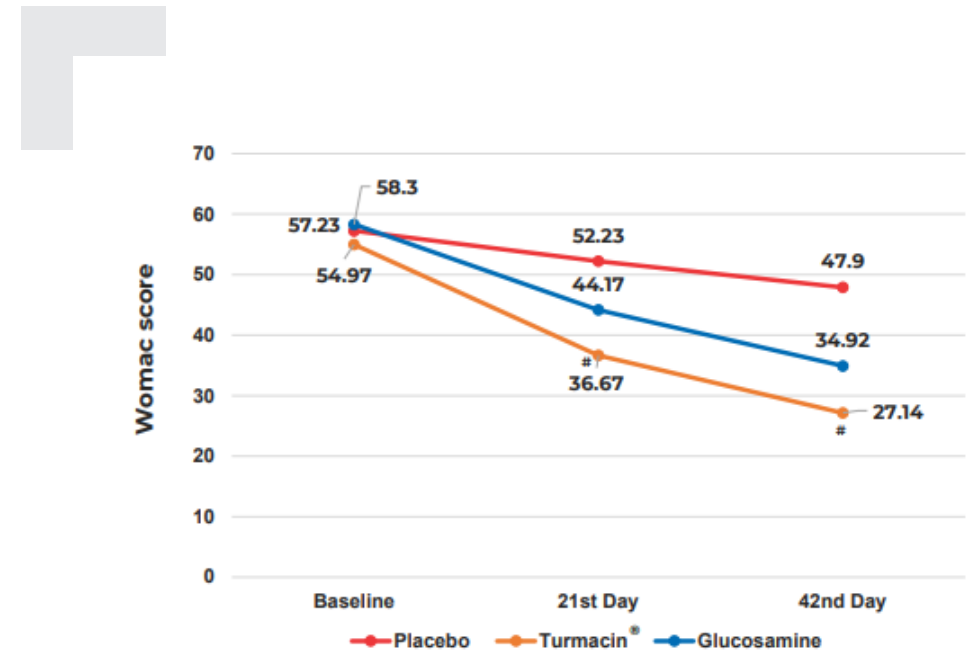
INDICATIONS
JOINT HEALTH
ANTI-INFLAMMATORY SUPPORT
SPORTS NUTRITION

advantages:

- **first turmeric ingredient** not based on curcuminoids
- **water-soluble**
naturally bioavailable, no need to further improve absorption like with standard turmeric extracts
- **water-extracted turmeric product**
no use of solvents
- **clinically researched and supported**
5 clinical studies
- **powerful anti-inflammatory activity**
reduces pain severity by 50% in 3 hours
- **significantly improves joint pain, stiffness and function**
based on the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) score (graph on the right) – compared to glucosamine and placebo
- **patented composition**

mechanisms of action:

- **reduces production of inflammatory mediators**, reactive oxygen species (ROS) and collagen degradation markers
- **increases synthesis of collagen**, proteoglycans and anti-inflammatory cytokines
- **reduces cartilage damage** and ageing of cartilage cells



clinical studies:

- Madhu et al., 2012: Safety and efficacy of *Curcuma longa* extract in the treatment of painful knee osteoarthritis: a randomized placebo-controlled trial
naturally bioavailable, no need to further improve absorption like with standard turmeric extracts
- Calderon-Perez et al., 2020: Acute effects of turmeric extracts on knee joint pain: a pilot, randomized controlled trial (finished product)
- Raj et al., 2020: Effect of Turmacin supplementation on joint discomfort and functional outcome among healthy participants – A randomized placebo-controlled trial
- Wang et al., 2020: Effectiveness of *Curcuma longa* extract for the treatment of symptoms and effusion–synovitis of knee osteoarthritis, A randomized trial
- Selvi et al., 2020: Safety of NR-INF-02, an extract of *Curcuma longa* containing turmerosaccharides, in healthy volunteers: a randomized, open-label clinical trial

pre-clinical studies:

- Chandrasekaran et al., 2013: Safety evaluation of turmeric polysaccharide extract: assessment of mutagenicity and acute oral toxicity
- Chandrasekaran et al., 2013: Immune-stimulatory and anti-inflammatory activities of *Curcuma longa* extract and its polysaccharide fraction
- Illuri et al., 2015: Anti-inflammatory activity of polysaccharide fraction of *Curcuma longa* extract (NR-INF-02)
- Bethapudi et al., 2017: Bioactive turmerosaccharides from *Curcuma longa* extract (NR-INF-02): Potential ameliorating effect on osteoarthritis pain



product examples



ACTAZIN[®]

natural powder from 100% New Zealand-grown green kiwifruit (*Actinidia chinensis var. deliciosa*) for bowel regularity support

- **supplier**
Anagenix
- **product grade**
powder suitable for capsules, tablets, powder forms, sachets, bulk powder blends, gummies
- **daily dose**
600 mg
- **stability**
30 months shelf life
- **certificates**
non-GMO project verified, Kosher



INDICATIONS
GUT HEALTH
BOWEL IRREGULARITY
DIGESTIVE DISCOMFORT

advantages:

- **clinically assessed** digestive health ingredient
- **FODMAP-friendly**
- **multiple format applications**
- **small dosage**
- **proprietary processing** retains high levels of key nutrients and bioactives
- **rich in soluble and insoluble fibers**, as well as enzyme actinidin
- **preservative-, sugar-, and gluten-free**
- **clinically supported combination** with Livaux®

mechanisms of action:

- **high fiber content**, promotes regularity, increases the rate of gastric emptying
- **reduces bloating**, gastric discomfort and constipation
- **contains enzyme actinidin** to help with protein digestion
- **prebiotic activity**, supports production of short chain fatty acids (SCFA)



clinical study:

- **Ansell et al., 2015: Kiwifruit-derived supplements increase stool frequency in healthy adults: a randomized, double-blind, placebo-controlled study**
 - While the number of stools increased, their form was not affected – Actazin® did not induce loose stools

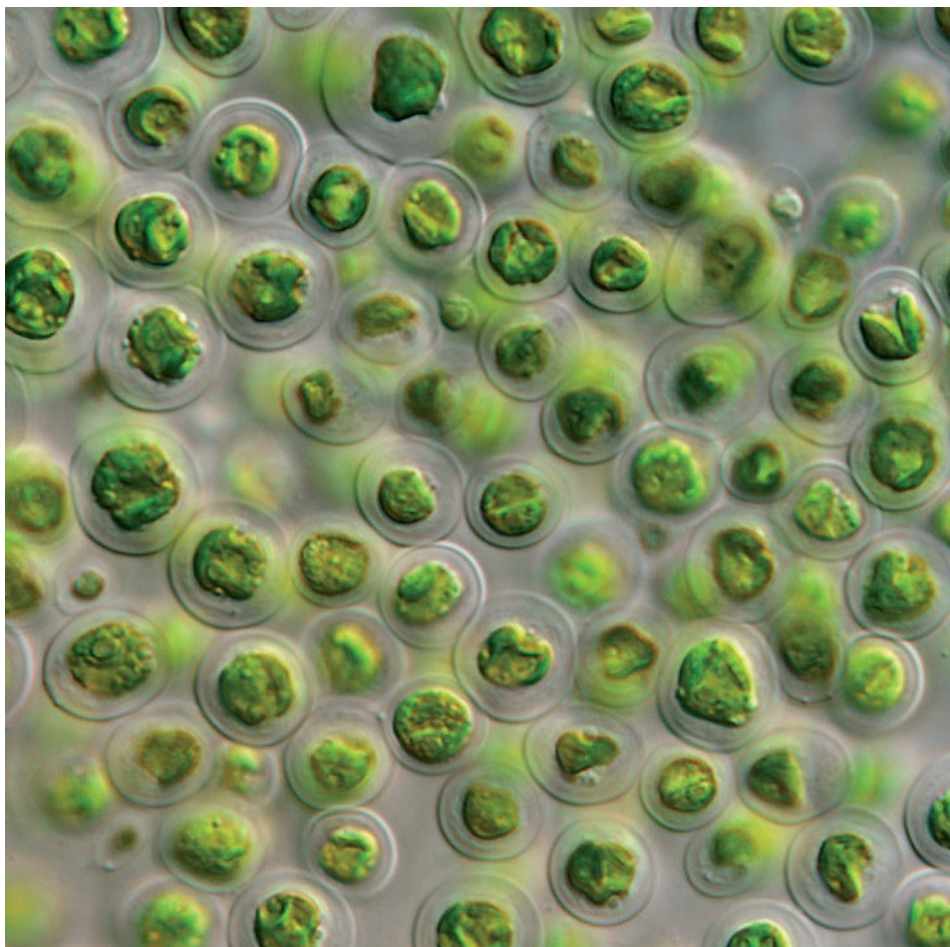
pre-clinical studies:

- **Duysburgh et al., 2019: A synbiotic concept containing spore-forming Bacillus strains and a prebiotic fiber blend consistently enhanced metabolic activity by modulation of the gut microbiome in vitro**
 - Fructooligosaccharides (FOS) from kiwifruit in combination with other prebiotics influenced microbial activity and composition in vitro, and enhanced butyrate production
- **internal in vitro study: Prebiotic effects of Actazin in vitro – microbial growth**
 - Actazin® supported the growth of probiotic strains, but not pathogenic bacteria



product examples





healthy functional marine ingredient from microalgae *Tetraselmis chuii*, rich in superoxide dismutase or SOD - one of the body's most powerful natural antioxidant enzymes

- **supplier**
Fitoplancton Marino
- **product grade**
powder form
- **daily dose**
25 mg
- **stability**
36 months shelf life
- **certificates**
approved Novel Food status in EU, Vegan

INDICATIONS

ANTI-OXIDATIVE SUPPORT
SPORTS NUTRITION
SKIN HEALTH & AND BEAUTY
HEALTHY AGEING
FERTILITY

advantages:

- **much more than a typical SOD ingredient**
contains other crucial antioxidative enzymes (glutathione peroxidase and catalase)
- **rich in naturally present nutrients from the cell**
essential fatty acids, vitamins, minerals, amino acids, and pigments
- **clinically tested**
- **small dose allows flexibility in formulations**
- **versatile ingredient**
suitable for many indications linked to oxidative stress
- **stable at high temperatures**
no need for coating or microencapsulation
- **produced by sustainable patented technology**

mechanisms of action:

- **antioxidant and anti-inflammatory action,**
oxidative stress reduction
- **SOD provides the first shield** against oxidative stress and damage in the body
- **induces other primary antioxidant enzymes** ((glutathione peroxidase and catalase)
- **activates genes** for antioxidant protection in human cells
- **improves performance** during stress tests and decreases lipid peroxidation in athletes



clinical study:

- **Bellido et al., 2017: Effects of *Tetraselmis chuii* intake on oxidative stress in athletes**

(improved performance, strong antioxidant effect: decreased lipid peroxidation, increased vitamin E levels in erythrocytes in plasma, increased O₂ consumption)

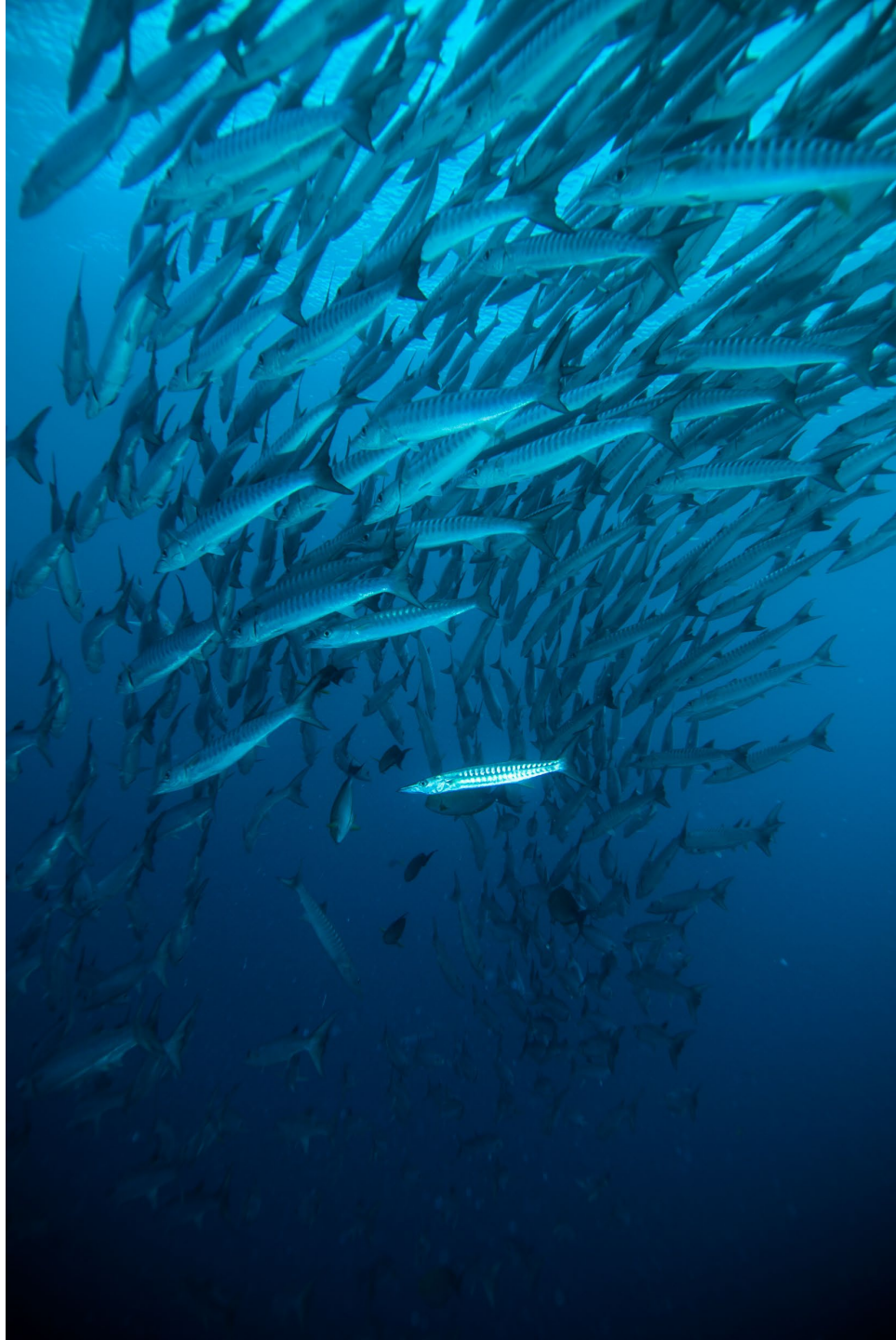
pre-clinical studies:

- **Mantecon et al., 2019: Safety assessment of a lyophilized biomass of *Tetraselmis chuii* (TetraSOD®) in a 90 day feeding study**
- **Ramirez et al., 2020: TetraSOD® activates the antioxidant response pathway in human cells: An in vitro approach**



product examples





hydrolyzed marine collagen from fish cartilage for joint health and skin support with a synergetic action of its components

- **supplier**
Abyss Ingredients
- **product grade**
powder suitable for tablets, capsules, sticks, liquid, soft gels and liquid form which needs to be shaken)
- **daily dose**
1 g
- **stability**
36 months shelf life
- **certificates**
Halal

INDICATIONS

JOINT HEALTH
SKIN HEALTH & BEAUTY

advantages:

- **synergistic action of collagen proteins (type II)** and glycosaminoglycans (chondroitin sulfate, glucosamine sulfate, hyaluronic acid).
- **highly digestible** low molecular weight peptides
- **gentle eco-friendly** water extraction
- **synergetic effects** for joint health
- **supported by clinical** and pre-clinical evidence

mechanisms of action:

- **collagen hydrolysate is absorbed intestinally** and accumulated in the cartilage
- **components provide structural molecules** and can stimulate the production of own collagen for healthy joints and skin
- **pain reduction** and mobility improvement



clinical studies:

- Maia Campos et al., 2021. Oral supplementation with hydrolyzed fish cartilage improves the morphological and structural characteristics of the skin: a double-blind, placebo-controlled clinical study
- **internal study: Clinical study in adult population with moderate knee joint discomfort and loss of functionality** (an exploratory, non-comparative, multi-centric trial): Cartidyss® significantly improves global knee function, reduces joint discomfort, has a significant impact on quality of life

pre-clinical study:

- Henrotin et al., 2021: Oral supplementation with fish cartilage hydrolysate accelerates joint function recovery in rat model of traumatic knee osteoarthritis



product examples



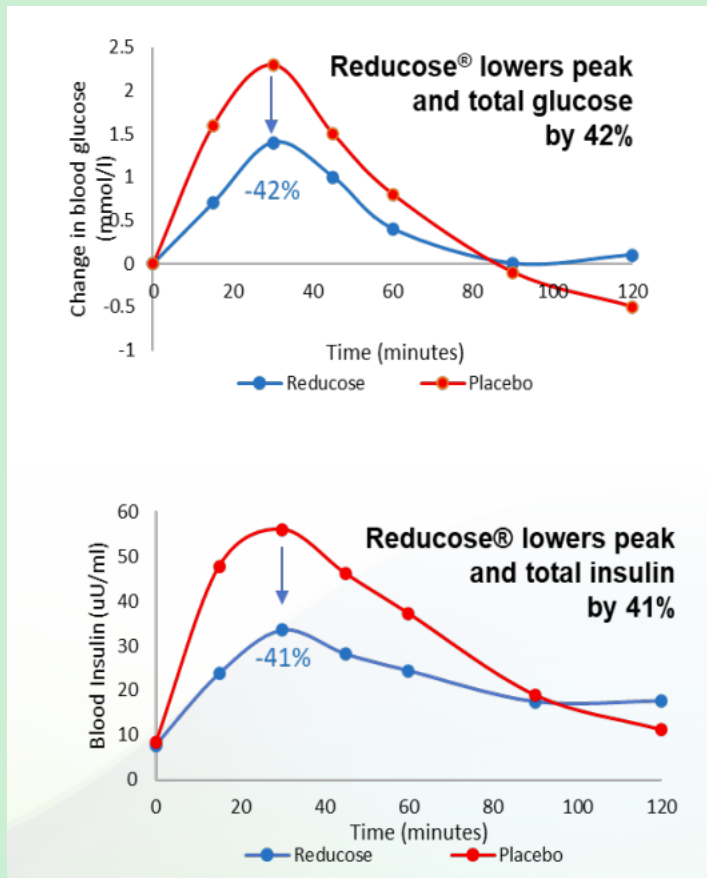


proprietary mulberry (*Morus alba*) leaf extract,
turns fast sugars and other carbs into slow ones

- **supplier**
Phynova
- **product grade**
powder suitable for tablets, capsules, soft melts, foods (baked goods, bars, fortified rice, congee), beverages (RTD beverages...)
- **daily dose**
200-250 mg
- **stability**
30 months shelf life
- **certificates**
Halal, Kosher, vegetarian, non-GMO



INDICATIONS
BLOOD SUGAR MANAGEMENT

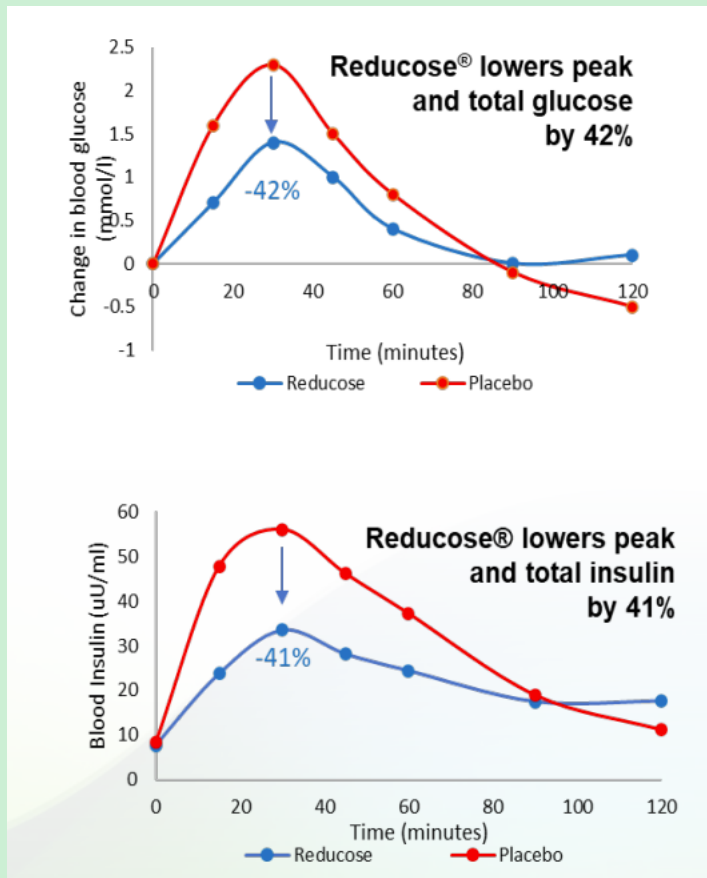


advantages:

- **patented, unique & natural water extract** for healthy blood glucose with immediate effect
- **clinically proven ~ 40% reduction** in post-meal blood glucose and insulin response
- **unlike typical carb-blockers**, prevents absorption of a wide range of carbohydrates
- **reduced cravings** and feeling of hunger
- **undigested carbs feed the good bacteria**

mechanisms of action:

- **contains 1-deoxynojirimycin** (structurally similar to D-glucose) which inhibits intestinal α -glucosidase enzymes, responsible for breakdown of carbohydrates before absorption
- **adding Reducose® to a meal lowers the glycemic index** of the food and lowers the postprandial blood glucose response, as it stops the carbohydrates from being digested
- **Reducose® is normally absorbed and excreted** unmetabolized after its action



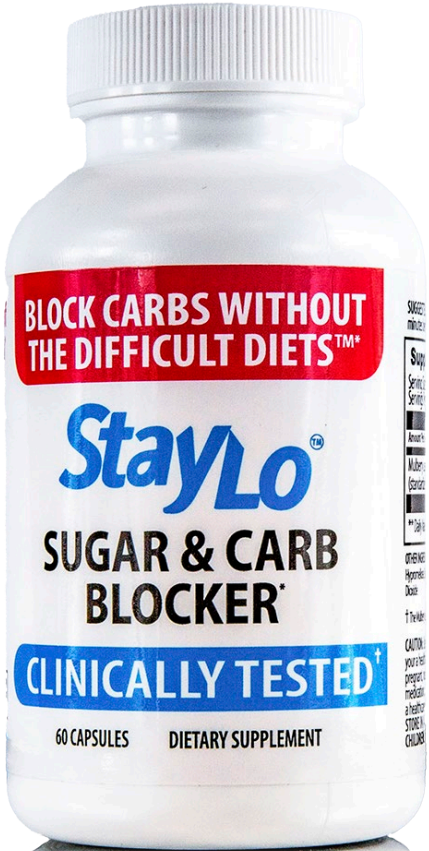
clinical studies:

- Lown et al., 2015: Mulberry extract to modulate blood glucose responses in normoglycaemic adults (MULBERRY): study protocol for a randomised controlled trial
- Lown et al., 2017: Mulberry-extract improves glucose tolerance and decreases insulin concentrations in normoglycaemic adults: Results of a randomised double-blind placebo-controlled study
- Wang et al., 2018: Mulberry leaf extract reduces the glycaemic indexes of four common dietary carbohydrates (Co-consumption of Reducose with sucrose, maltose, or maltodextrin can reduce the GI values of these carbohydrates)
- Thondre et al., 2021: Mulberry leaf extract improves glycaemic response and insulaemic response to sucrose in healthy subjects: results of a randomized, double blind, placebo-controlled study

pre-clinical study:

- Liu et al., 2016: Prevention Effects and Possible Molecular Mechanism of Mulberry Leaf Extract and its Formulation on Rats with Insulin-Insensitivity

product examples





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