



SELECTSIEVE® RAINBOW
GET RID OF YOUR STUBBORN CELLULITE!



ROELMI HPC is the global expert in innovation for Health & Personal Care market

**FUNCTIONAL
INGREDIENTS**

**ACTIVE
INGREDIENTS**

**FORMULA
PROTECTION**

OUR COMMITMENT

NO IMPACT IN PROGRESS®

Non-edible fractions

Renewable sources

Ethical supply chain

Safety & performance

Circular economy

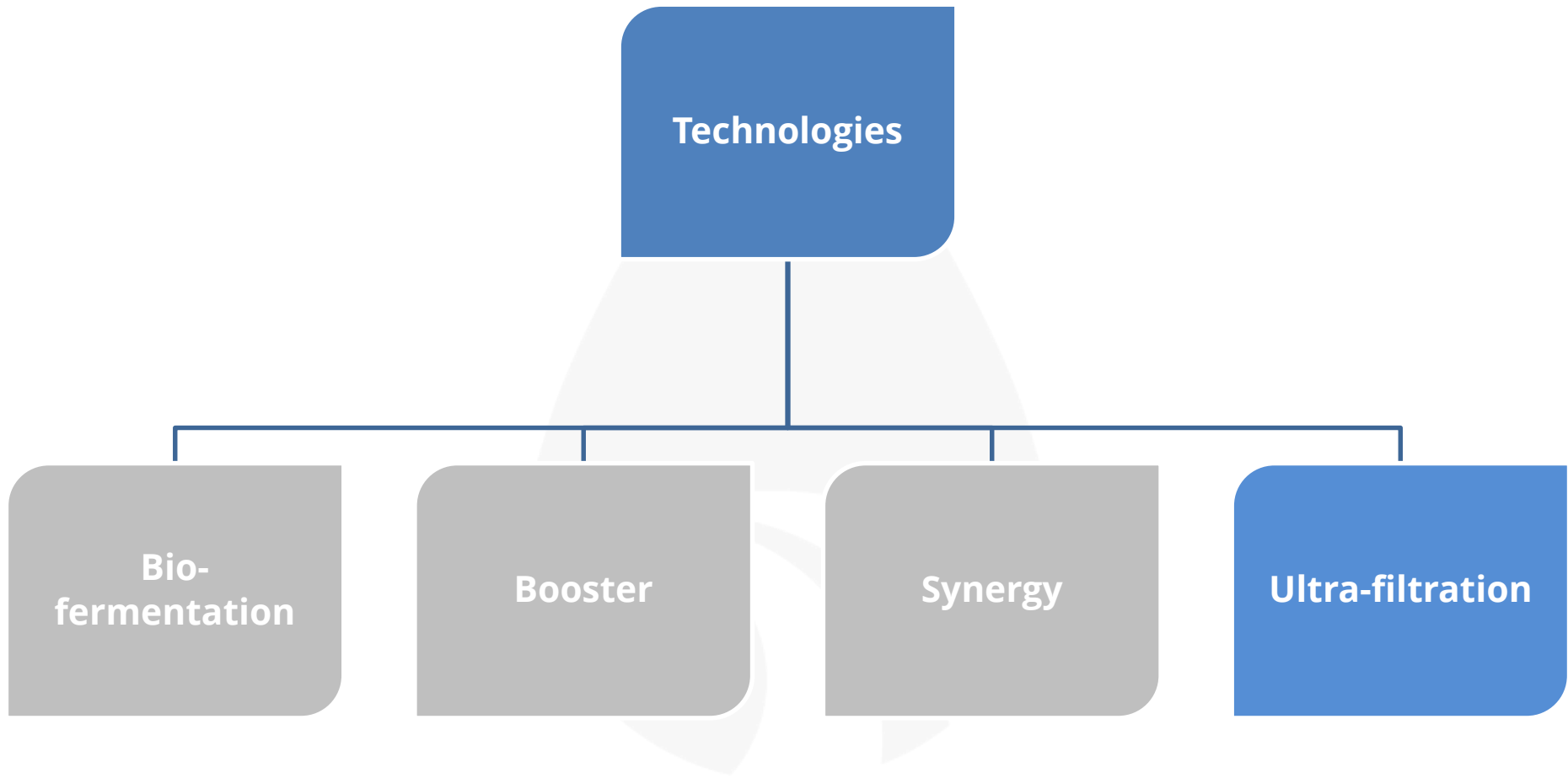
OUR VALUES

ROELMI HPC aims to enhance humans life-quality linking science and environmental preservation in the best possible way.

Thanks to its long-term expertise, **ROELMI HPC** approaches the Health & Personal care market through a scientific method based on recognized quality, avant-garde research and passion.

With a deep commitment to sustainable development, **ROELMI HPC** aims to respect and preserve Nature in manufacturing process by using and proposing only soft processes and renewable resources.

Active ingredients - Technologies



SelectSIEVE® Rainbow

- ✔ Well-accomplished combination of body friendly compounds
- ✔ Proprietary ultra-filtration technology GSMT®
- ✔ Powerful slimming & anti-cellulite effect
- ✔ Draining function, suitable to improve microcirculation
- ✔ Fat burning & satiety effect
- ✔ Anti-inflammation activity for localized edema



SelectSIEVE® Rainbow - Biological target

☑ Cellulite is a skin discomfort affecting 85% women over 20Y

☑ Several factors:

- ✓ Hormonal changes
- ✓ Dietary habits
- ✓ Sedentary life
- ✓ Genetics
- ✓ Smoke
- ✓ Psychological stress
- ✓ Overweight



SelectSIEVE® Rainbow – Functional components

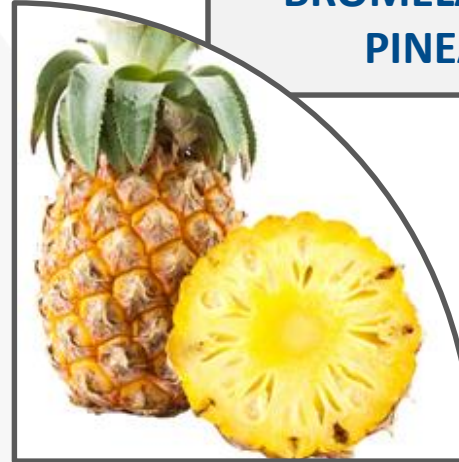
ANTHOCYANINS FROM BLACK RICE

- < Collagen synthesis
- < Antioxidant
- < Improvement of microcirculation
- < Increase of capillary strength
- < Anti-edema properties



BROMELAIN FROM PINEAPPLE

- < Draining function
- < Anti-inflammatory
- < Collagen synthesis



- < Collagen synthesis
- < Antioxidant
- < Improvement of microcirculation
- < Lipolysis and thermogenesis activity
- < Reduction of sugar absorption

FLAVONOIDS FROM RED ORANGE



FIBERS & ENZYMES FROM KIWI

- < Anti-oxidant
- < Collagen synthesis
- < Proteolytic activity of actinidina



SelectSIEVE® Rainbow – Mechanism of action



Thermogenic effect inducing fat burning and **lipolytic** action on differentiated adipocytes



Increased **collagen** synthesis thus promoting skin elasticity, **microcirculation** and **vasculoprotection**



Antioxidant capacity reducing lipid peroxidation and protecting cells structure from damages



Inhibition of the enzymes responsible for **carbohydrate** metabolism and absorption



Veinotonic activity on smooth muscle cells thus improving tonicity and firmness



Anti-inflammatory and **anti-edema** properties reducing **water retention**



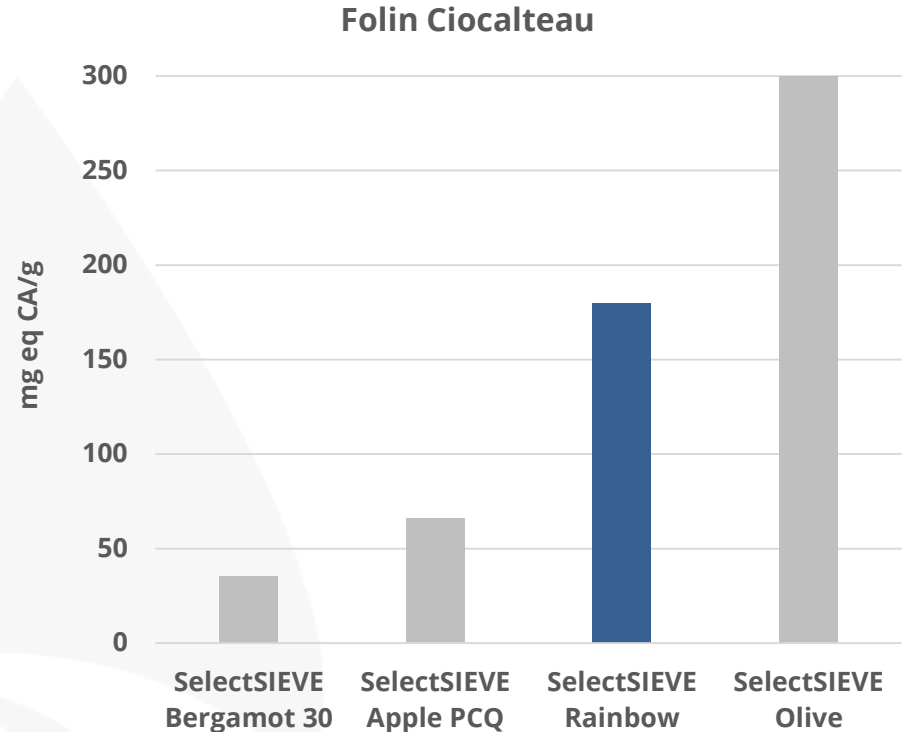
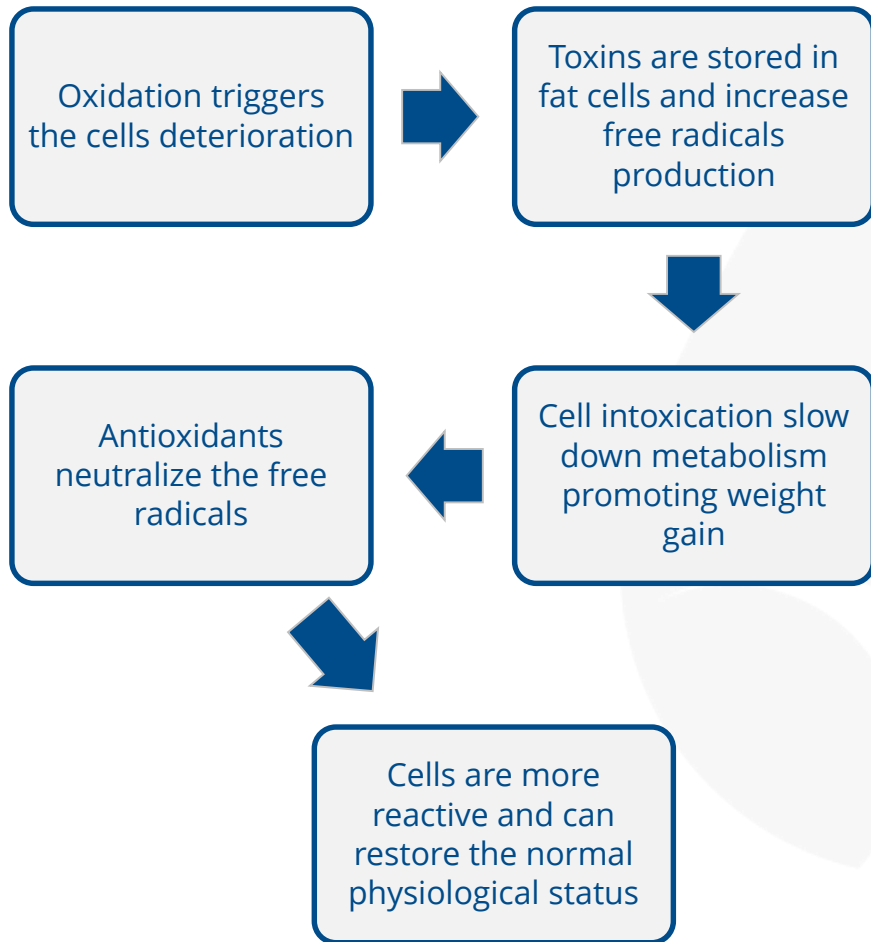
Detoxifying action improving aerobic metabolism



Enhanced **digestion** metabolism thanks to **proteolytic** enzymes

SelectSIEVE® Rainbow – Efficacy dossier

Antioxidant activity



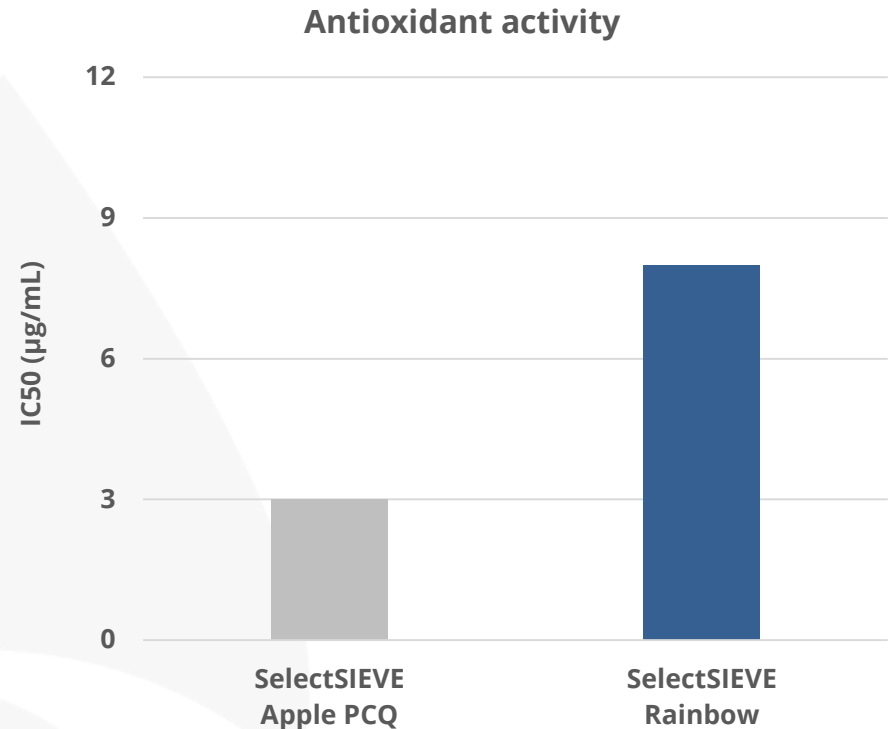
Protocol: measure of total reducing capacity of phenolic compounds with respect to a standard reference such as catechins. Phenolic compounds undergo a complex redox reaction where phosphomolybdic / phosphotungstic acid complexes from chromogens and the metals have lower valence. Antioxidant properties are indicated by means of their catechin equivalents as “mg of catechin/g of measured substance”.

In-vitro model

SelectSIEVE® Rainbow – Efficacy dossier

Antioxidant activity

- ✔ SelectSIEVE® Rainbow exerts a good antioxidant activity against idrophilic free radicals (ABTS).
- ✔ This activity is comparable to the one exerted by product standardized in more than 90% polyphenols, suggesting the synergistic activity of the SelectSIEVE® Rainbow molecules in reducing the oxidation of the cells.



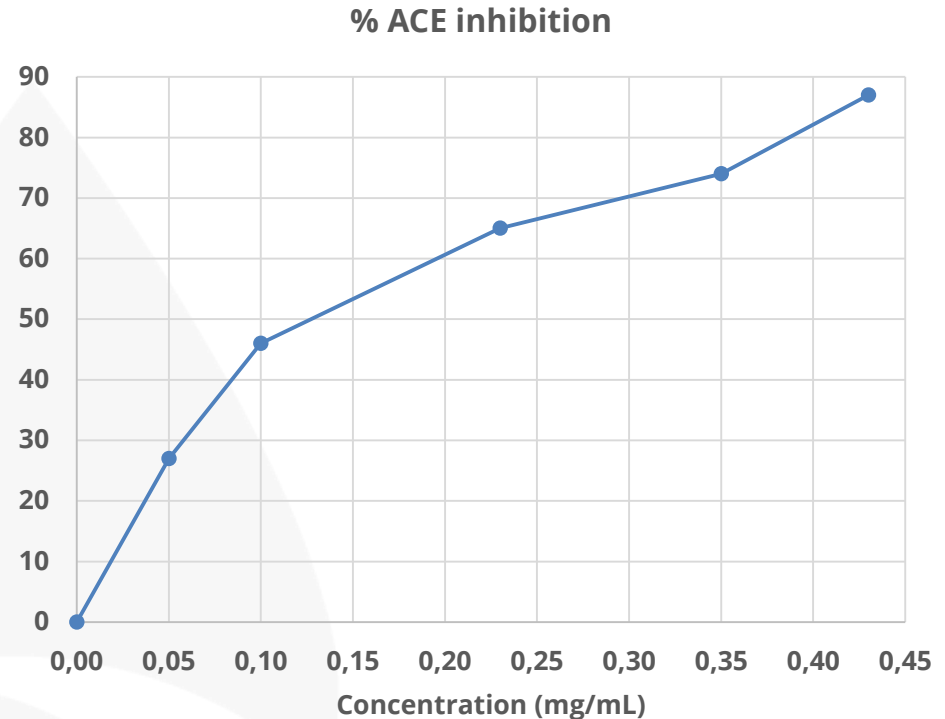
Protocol: IC50 = half maximal inhibitory concentration of a reference substances. This quantitative measure shows the amount of the ingredient required, in order to inhibit a given physiological or biological process (or its component) up to 50%.

In-vitro model

SelectSIEVE® Rainbow – Efficacy dossier

ACE inhibitory effect

- ✔ Polymorphism of ACE (angiotensin converting enzyme) and HIF1A (Hypoxia-inducible factor 1-alpha) genes are related with the onset of cellulite¹.
- ✔ Bad tissue oxygenation can lead to cellulite and worsen cellulite severity.
- ✔ SelectSIEVE® Rainbow strongly inhibits the ACE, favoring microcirculation and tissues nourishment.



Protocol: inhibition of Angiotensin-converting enzyme (ACE) activity was evaluated at different concentrations of SelectSIEVE® Rainbow, adding hippuryl-L-histidyl-L-leucine and measuring the formation of hippuric acid. The degree of ACE inhibition is represented by the amount of hippuric acid formed and it was expressed as inhibition percentage.

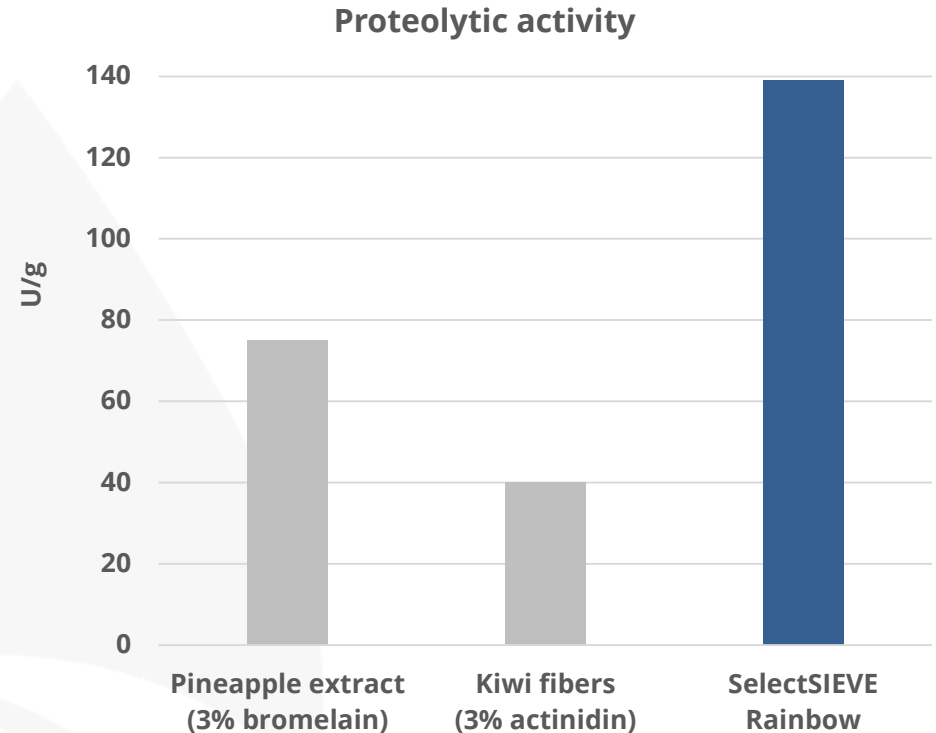
(1) Journal of European Academy of Dermatology and Venereology 2010 Aug;24(8):930-5. doi: 10.1111/j.1468-3083.2009.03556.x. Epub 2010 Jan 6. A multilocus candidate approach identifies ACE and HIF1A as susceptibility genes for cellulite. Emanuele E1, Bertona M, Geroldi D.

In-vitro model

SelectSIEVE® Rainbow – Efficacy dossier

Proteolytic activity

- ✔ The breakdown of proteins into smaller polypeptides or amino acids concurs in the regeneration and maintenance of muscle tissues favoring tonicity.
- ✔ SelectSIEVE® Rainbow exerts a strong proteolytic activity and it is more powerful than Pineapple extract and Kiwi extract alone.



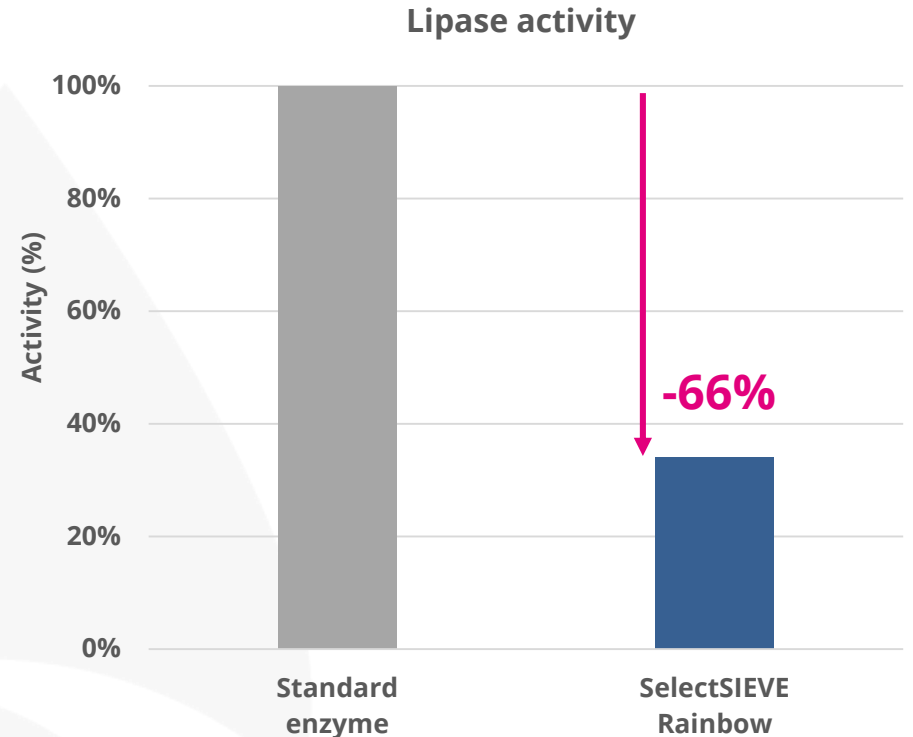
Protocol: proteolytic activity (PA) was measured using the casein digestion method.

In-vitro model

SelectSIEVE® Rainbow – Efficacy dossier

Lipolitic activity

- ✔ Pancreatic lipase plays a key role in the digestion of triglycerides. The inhibition of this enzyme can reduce the triglycerides absorption after meal and their release into the body from the adipocytes storage.
- ✔ SelectSIEVE® Rainbow demonstrates a good capacity in lipase inhibition (66%), showing a hypolipidemic effect.



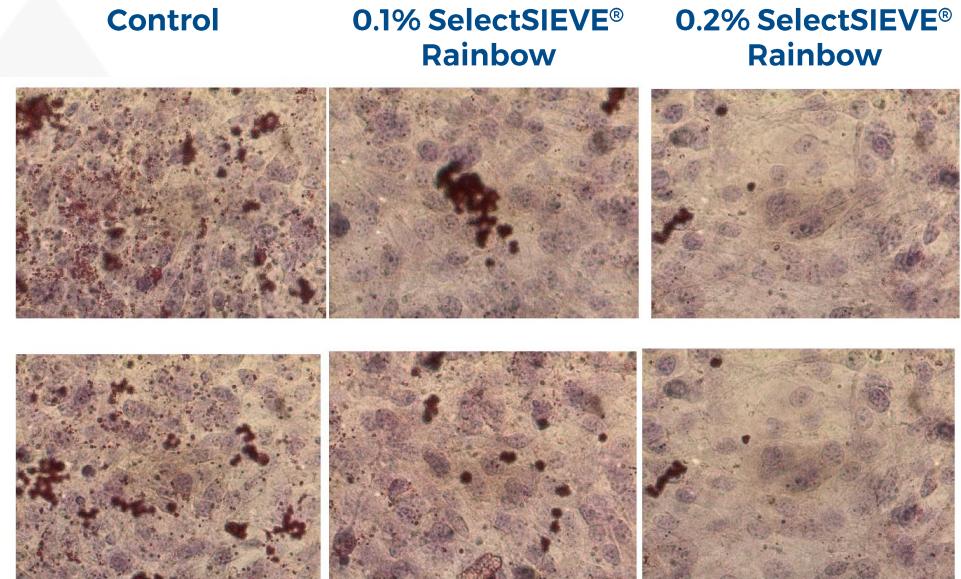
Protocol: activity of pancreatic lipase was determined SpectroFluorimetrically by p-nitrophenol formation after substrate hydrolysis.

In-vitro model

SelectSIEVE® Rainbow – Efficacy dossier

Anti-adipogenic activity

- ✔ Reduction of lipolytic granules (dark red) shows a decrease of pre-adipocytes maturation into adipocytes.
- ✔ SelectSIEVE® Rainbow is able to reduce the adipogenesis already at 5-10mg reducing the fat storage.
- ✔ These are 60 to 30 times lower than the suggested daily dosage (300mg).



Protocol: evaluation of lipidic granules in preadipocytes 3T3 using the Oil-Red-O method. The test was performed using 0,1% and 0,2% of SelectSIEVE® Rainbow, corresponding to 5 and 10mg

In-vitro model

SelectSIEVE® Rainbow – Efficacy dossier

Ongoing human trial

- ✔ 60 (30 active + 30 placebo) adult female subjects
- ✔ 56 days treatment: evaluation at T0, T28 and T56
- ✔ 300mg daily dosage of SelectSIEVE® Rainbow
- ✔ Parameters:
 - ✔ Measurement of cellulite-induced alteration of skin microcirculation
 - ✔ Measurement of superficial adipose tissue
 - ✔ Measurement of skin elasticity
 - ✔ Measurement of weight
 - ✔ Self-assessment questionnaire

**Expected
results
MAY 2018**

Human model

SelectSIEVE® Rainbow – Applications

TYPICAL APPLICATIONS



- ✓ Anti-cellulite
- ✓ Fat burning

✓ Draining & improvement of microcirculation

✓ Local fat reduction

✓ Anti-inflammatory & anti-edema

SUITABLE FOR

- ✓ Capsules
- ✓ Tablets
- ✓ Soft gels
- ✓ Sachet / sticks
- ✓ Vials / beauty drinks
- ✓ Syrups



SelectSIEVE® Rainbow – Formulation ideas

IN & OUT complementary treatment

IT \subseteq SLIM: *Synergy of Capsicum, Caffeine and Ruscus conjugated with Dextran polymeric system*

- ✔ In-vitro inhibition of adipogenesis
- ✔ Slimming effect
- ✔ Efficient in fighting cellulite derived skin imperfections
- ✔ Improved of overall skin elasticity and microcirculation



Protocol: In vitro study: The presence of lipid granules in 3T3L1 cell cultures induced to adipogenic differentiation was determined by Oil - Red - O staining, able to bind the neutral lipid content in fatty vesicles of mature cells, highlighting them in red. In the aim to investigate the anti-adipogenic effect, 3T3-L1 preadipocytes were induced to differentiate in the presence and in the absence of IT \subseteq Slim , and cells were stained with Oil Red O solution

SelectSIEVE® Rainbow – Ingredient summary

- ✔ **Description:** natural complex of anthocyanins from black rice, flavonoids from citrus fruits, fibers and proteolytic enzymes from kiwi and pineapples
- ✔ **Origin:** ultrafiltration / GSMT® technology
- ✔ **Aspect:** brownish fine powder
- ✔ **Solubility:** water soluble
- ✔ **Typical dosage:** 200 - 500 mg/day
- ✔ **Tested dosage:** 300 mg/day

Contact information

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