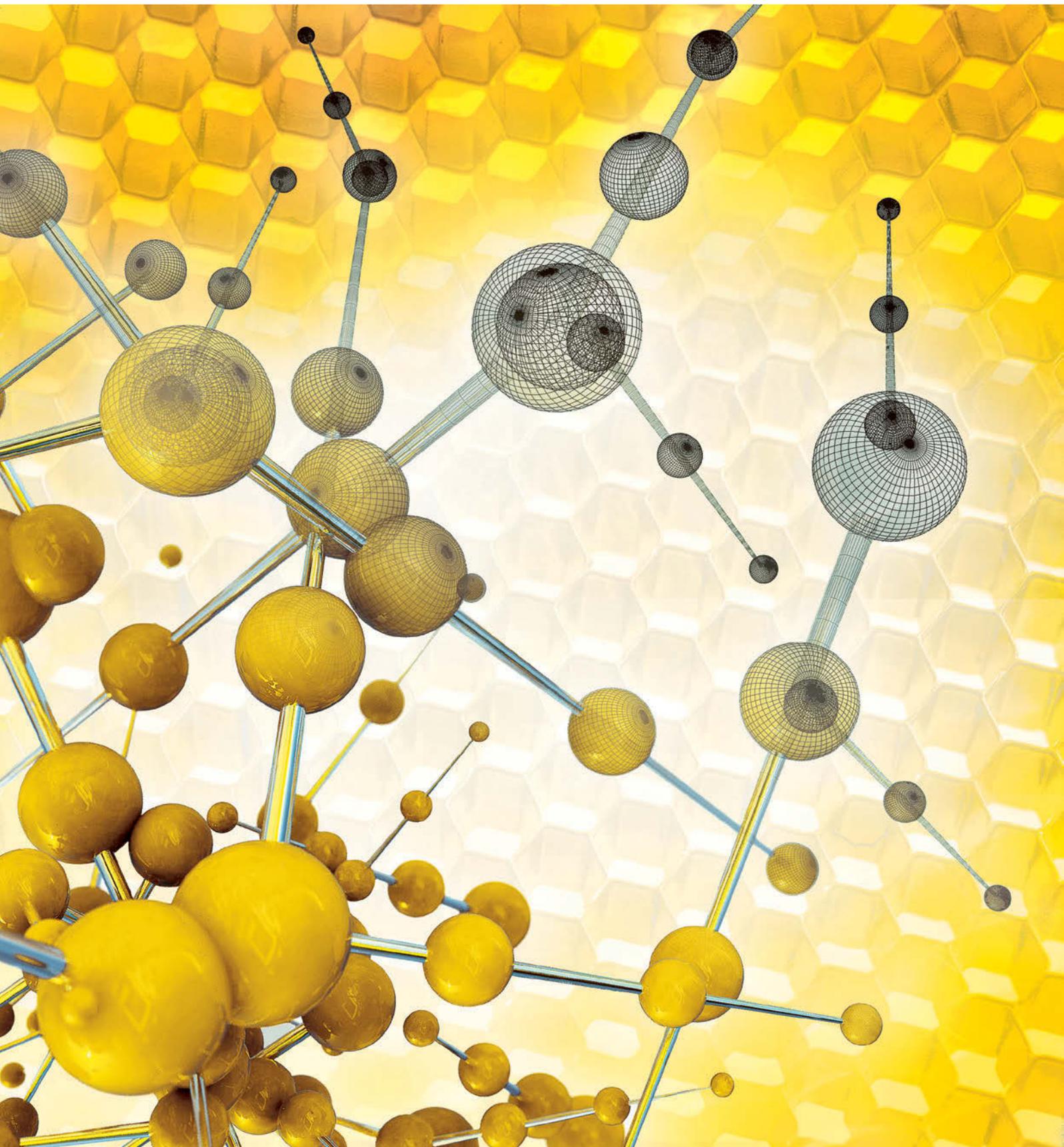




RoyalEpigen P5  
Rejuvenation through  
epigenetic science



# RoyalEpigen P5

## Rejuvenation through epigenetic science

### A Royal Jelly-like Peptide for Skin Regeneration

RoyalEpigen P5 is a new and biologically-active peptide that activates skin regeneration and glow. Inspired by epigenetic science, this peptide mimics royal jelly to maximize its positive effects on the skin.

Honeybee workers and queens greatly differ in appearance, longevity and behavior despite the fact that they share exactly the same DNA. In 2011, Japanese scientists discovered that honeybees modify their genetic code by consuming royal jelly. Indeed, a protein of this peculiar juice was shown to be able to modify gene expression in honeybees without changing the DNA sequence, a biological process called epigenetics. This protein was named royalactin ("queenmaker") as it determined the fate of the honeybee.

Due to the fact that royalactin is unstable and too large to penetrate the skin, Mibelle Biochemistry has developed a peptide that copies its active sequence. For improved skin uptake, the peptide was incorporated into a soft sphere carrier system based on shea butter.

In vitro assays performed on skin cells showed the capacity of RoyalEpigen P5 to:

- improve tissue regeneration by stimulating cell proliferation and migration
- maintain the regenerative potential of skin cells in an aging environment
- activate protein turnover through proteasome stimulation.

In clinical studies, RoyalEpigen P5 stimulated the skin renewal, which led to a rapid increase in skin smoothness. In addition to this, when applied on the face of women presenting uneven skin tones, this royalactin-like peptide improved the uniformity of their complexions within just 28 days.

### Claim Ideas for RoyalEpigen P5

- Reveals a more even toned skin
- Accelerates epidermal regeneration for a smooth skin
- Activates the cellular cleaning process
- Delays cell aging by applying new discoveries in epigenetic sciences

### Applications

- Skin renewal creams
- Repair serum
- Radiance boosters
- CC (Color Control) creams

### Formulating with RoyalEpigen P5

- Recommended use level: 2–3%
- Incorporation: For cold processes, dissolve RoyalEpigen P5 into the aqueous phase.  
In hot/cold processes, add during the cooling phase below 45°C.
- Thermostability: Temperatures of up to 45°C for a short time will not affect the stability of RoyalEpigen P5.

### INCI (EU/PCPC) Declaration

Pentapeptide-48 (and) Hydrogenated Lecithin (and) Glycerin (and) Butyrospermum Parkii (Shea) Butter (and) Phenethyl Alcohol (and) Ethylhexylglycerin (and) Maltodextrin (and) Aqua/Water