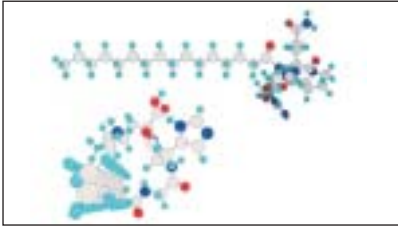


Patent N° WO 2005/048968

MATRIXYL™ 3000



Pal-GHK and Pal-GQPR

Function:
Anti-wrinkle.

Definition:
Matrixyl™3000 contains the matrikines Pal-GHK and Pal-GQPR acting in synergy to repair the cutaneous damages of age.

Properties:
Matrixyl™3000 contains matrikines which are messengers of cutaneous restructuring and repair. They activate the neosynthesis of extracellular matrix macromolecules providing Matrixyl™3000 with a visible anti-wrinkle efficacy.

Characteristics:
Matrikines are messenger peptides capable of regulating cell activities by interacting with their specific receptors. They activate certain genes involved in the process of extracellular matrix renewal and cell proliferation. Those mechanisms become weaker and weaker with age.

INCI Name:
(Check CTFA on-line dictionary for latest INCI name)
Glycerin – Aqua (Water) – Butylene Glycol – Carbomer – Polysorbate 20 – Palmitoyl Oligopeptide – Palmitoyl Tetrapeptide-7*
* former INCI name: Palmitoyl Tetrapeptide-3

Applications:
Anti-wrinkle products.

Formulation:
Water soluble.

Recommended use level:
3%



45% less wrinkles in 2 months



Lifetime youth



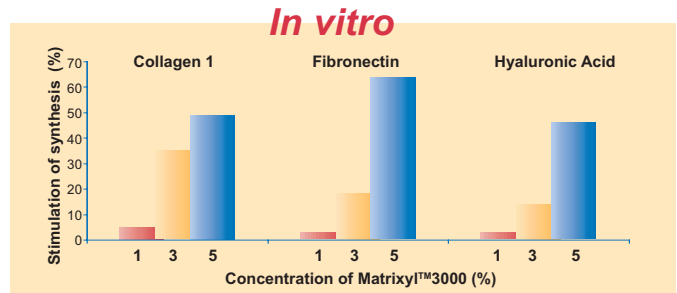
In vitro tests

- **Synthesis of matrix macromolecules**

Study of the stimulation of synthesis of extracellular matrix components by fibroblasts incubated of 72 hours with Matrixyl™3000 (1, 3, 5%).

- **Stimulation of gene expression**

Study of the regulation of dermal and epidermal genes by matrikines from Matrixyl™3000, using DNA-Array technique on reconstructed epidermis and on fibroblast culture.



Matrikines from Matrixyl™3000 show a complementary gene activation profile with respect to the major mechanisms involved in cutaneous restructuring.

In vivo tests

- **Anti-wrinkle efficacy**

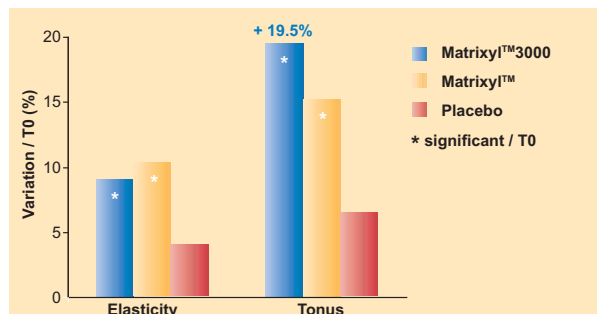
2 panels of 23 volunteers aged from 39 to 74 years / Twice daily application on half a face of a cream containing 3% of Matrixyl™3000 against placebo or 3% of Matrixyl, for 2 months. Assessment of the anti-wrinkle efficacy by profilometry and photography compared to T0.

	Variation of parameters compared to T0 (%)		
	Matrixyl™3000	Matrixyl™	Placebo
Surface occupied by deep wrinkles (>200µm)	- 44.9**	- 27.7**	4.3ns
Main wrinkle density	- 37.0**	- 27.3*	- 9.6ns
Main wrinkle average depth	- 15.1**	- 9.8**	- 3.2ns
Main wrinkle average volume	- 18.5**	- 14.7**	- 8.7*
Roughness	- 14.4**	- 10.8**	1.4ns
Complexity (Lifting effect)	- 16.6**	- 12.7**	4.2ns

ns : non significant *significant / T0 (p<0.05) **significant / T0 (p<0.01)

- **Effect on skin tone and elasticity**

Assesment of elasticity and tone by cutometry on the same panel as above.



With Matrixyl™3000, skin tone and elasticity displayed a major and significant improvement.

In vivo

