

In vitro tests

Inhibition of proteolytic enzymes

During the inflammatory phase contributing to the formation of stretch marks, proteolytic enzymes are released such as trypsin, chymotrypsin (mast cell degranulation) and leukocyte elastase (macro-phages).

Trypsin, chymotrypsin or elastase are incubated with REGESTRIL™ at different concentrations. The inhibition kinetics are monitored for a few minutes.

Enzymatic activities	REGESTRIL™			
	1%	2%	3%	4%
Trypsin	-4%	-14%	-32%	-58%
Chymotrypsin	-3%	-7%	-11%	-15%
Elastase	-41%	-66%	-80%	-90%

REGESTRIL™ inhibits, in a dose-dependent and significant manner, the proteolytic enzymes released during the formation of the stretch mark.

Synthesis of matrix macromolecules

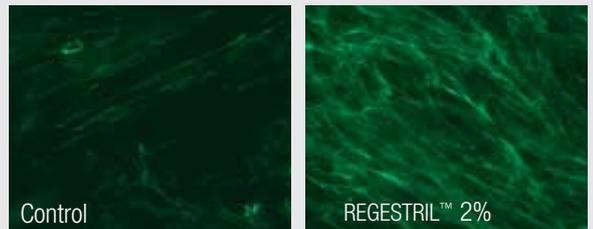
Human fibroblasts are incubated with REGESTRIL™ at 2%. After incubation, the collagen I and the fibronectin produced are quantified by immunodosage and visualised by immunofluorescence.

- Synthesis of collagen I ————— **+102%**
- Synthesis of fibronectin ————— **+ 91%**

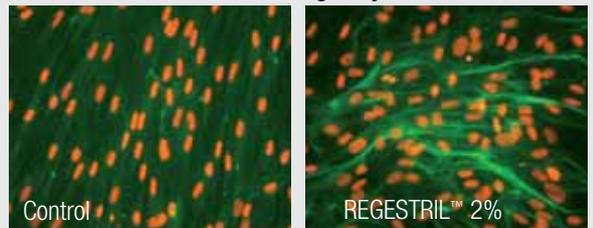
REGESTRIL™ fights against the degradation of the extracellular matrix contributing to the formation of stretch marks by:

- antagonising the destructive effect of proteolytic enzymes.
- stimulating the neosynthesis of the matrix macromolecules.

Stimulation of fibronectin synthesis



Stimulation of collagen synthesis



In vivo tests

Anti-stretch mark efficacy

13 women with stretch marks on the abdominal area (post pregnancy) / Twice daily application of a cream containing 2% REGESTRIL™ / 56 days / The anti-stretch mark efficacy was assessed by echography and dermatological evaluation.

Colour	-21.7%	$p < 0.05$
Relief	-21.9%	$p < 0.05$
Width	-26.7%	$p < 0.01$
Skin thickness	+10.8%	$p < 0.05$
Stretch mark depression	-72.5%	$p = 0.07$

REGESTRIL™ shows a visible and significant anti-stretch mark efficacy. After 2 months use, stretch marks fade and skin becomes smoother.

