重组人源化胶原蛋白、Recombinant human collagen

种属：	Human Cells
表达系统：	Prokaryotic expression system、Eukaryotic expression system
标签：	not have
同用名：	重组人源化胶原蛋白、Recombinant human collagen、胶原蛋白
分子量：	13.10 kD
纯度：	Greater than 95% as determined by Tris-Bis PAGE.
储存条件:	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 100mM NaCl, pH7.5 Freeze dried by cover buffered brine
备注:	Always centrifuge tubes before opening.Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
储存时间：	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
运输：	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.

四川肽极生物
SI CHUAN TAI JI SHENG WU

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背景:

Recombinant human collagen is based on the original gene sequence of human skin type III collagen, and the codon optimization and splicing of the parts with strong water solubility and high biological activity are optimized to obtain a brand new recombinant human type III collagen sequence. Biological fermentation technology is used to achieve large-scale production. Experiments have confirmed that this collagen has high expression and good water solubility. With high biological activity, its properties are better than natural human collagen, and it has broad application prospects in biomedical materials, beauty cosmetics, food health and other fields.

In normal skin tissue, collagen mainly exists in the form of type I and III collagen fibers.

Type I collagen and type III collagen are closely related to the process and quality of skin damage repair. Type III collagen accounts for 60% of normal fetal skin. With the growth and development, type III collagen is continuously reduced, and type I collagen is continuously increased. The collagen composition of adult skin is type I (80%) and Type III (20%). The mechanism of fetal scarless healing is due to the fetal's strong ability to synthesize type III collagen.

The basic structure of recombinant human collagen is exactly the same as that of human body, and on this basis, it is optimized to improve the hydrophilicity and activity of collagen. Contains a large number of hydrophilic genes, has a good film formation, keep the skin stratum corneum water. At the same time, its directional guiding effect can guide epithelial cells to enter the damaged site quickly, effectively improve the skin regeneration rate, shorten the wound healing time, and thus restore the skin barrier function.

Based on the original gene sequence of human type III collagen, codon optimization and recombination were performed on the parts with strong water solubility and high biological activity. A collagen protein with 100% homology with human, strong water solubility, high biological activity and high transdermal absorption rate was realized by biological fermentation technology using the expression system of Escherichia coli. With a unique 164.88° triple helix flexure, this structure significantly enhances the adhesion of collagen to cells.

Recombinant human collagen is a kind of high purity collagen synthesized by genetic engineering technology, which has excellent biocompatibility, purity and stability. It has a wide range of applications in medical, cosmetic and anti-aging fields to promote tissue repair and regeneration, improve skin quality, reduce wrinkles and restore a youthful appearance. In this paper, the application of recombinant human collagen was discussed, and the challenges and prospects of its development were discussed.

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展示数据 ：

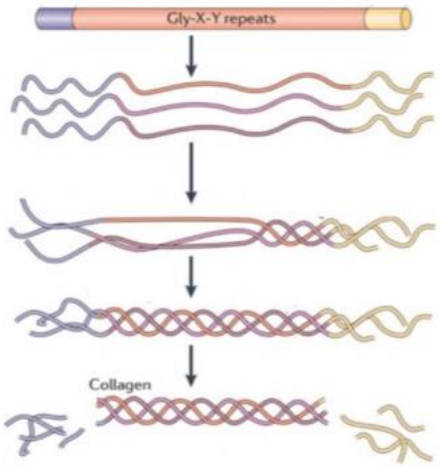

图1 胶原蛋白三维螺旋结构示意图

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