ABSTRACT

A self-crosslinking recombinant humanized collagen polymer biomaterial and a preparation method therefor are provided. A collagen self-assembled element includes (i) at least 21 consecutive amino acids at the C-terminus of the amino acid sequence as shown in SEQ ID NO. 1; or an amino acid sequence that is obtained by means of substitution, deletion or addition of one or more amino acids in the amino acid sequence as described in (i) and that retains the function of promoting the self-crosslinking of recombinant type III humanized collagen to form a triple helix structure; or an amino acid sequence that has at least 90%, 92%, 95%, 96%, 97%, 98% or 99% identity to the amino acid sequence as described in (i) and that retains the function of promoting the self-crosslinking of recombinant type III humanized collagen to form a triple helix structure.

Fig. 6 for publication