perplexity

do you know cm(carboxil metanol) kitozan?

Yes, I know about CM (carboxymethyl) chitosan. It is a chemically modified derivative of chitosan, which itself is derived from chitin, a natural polysaccharide found in crustacean shells. Carboxymethylation involves attaching carboxymethyl groups (-CH2COOH) to chitosan's amino (-NH2) and hydroxyl (-OH) groups, improving its solubility in water, biodegradability, and biocompatibility.

Carboxymethyl chitosan (CMC) has several enhanced properties compared to native chitosan, such as increased water solubility, antioxidant and antimicrobial activities, moisture retention, and cell interaction abilities. These make it useful in pharmaceutical applications like controlled drug delivery, wound healing, and DNA delivery. The degree of substitution and type of carboxymethylation (N-substitution, O-substitution, or both) can be controlled via reaction conditions, such as pH and NaOH concentration during synthesis, often using monochloroacetic acid as the carboxymethylating agent[1] [2] [3].

Overall, CM chitosan is a versatile biomaterial with wide applications in medicine, pharmacy, and even animal nutrition due to its improved functional properties over native chitosan[4].

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1. https://aml.iaamonline.org/article_13709_26a999fac8a782e8e758735a7a15639c.pdf
2. https://pmc.ncbi.nlm.nih.gov/articles/PMC8026200/
3. https://pmc.ncbi.nlm.nih.gov/articles/PMC7407185/
4. https://madbarn.com/ingredient/cm-chitosan/