

□ Cat # RP-921

Recombinant Human Gelatin

Size: □ 5 mg

Gelatin is a translucent, colorless, brittle, virtually tasteless solid substance. Historically, gelatin is denatured collagen and is typically isolated from bovine or porcine skin or bone by acid or base extraction. Approximately fifty thousand metric tons of gelatins are produced annually for medical use. Most of this volume is consumed in some aspect of oral drug delivery, which uses mixtures of bovine and porcine gelatin. Additionally, thousands of metric tons are used annually for parenteral formulations and devices. Gelatin melts when heated and solidifies when cooled again. Together with water, gelatin forms a semi-solid colloid gel. Gelatin forms a solution of high viscosity in water, which sets to a gel on cooling. Currently available gelatin preparations consist of a distribution of polypeptide fragments of different sizes, different isoelectric points (pI), and different gelling properties, and often exhibit lot-to-lot variability. Furthermore the physicochemical properties of these gelatins vary depending on method of extraction, amount of thermal denaturation employed, and electrolyte content of the resulting material. The variable nature of such gelatin preparations, therefore, presents a significant challenge to those who use these protein mixtures in the manufacture of other products.

SOURCE:

Recombinant Gelatin having a molecular mass of 8,500 dalton using a recombinant yeast system (*Pichia pastoris*) to express specified fragments of Type I, alpha1 human sequence collagen. The protein was lyophilized from a concentrated solution containing no additives.

APPLICATION AND SUGGESTED DILUTIONS:

Greater than 95.0% as determined by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

STORAGE & STABILITY:

Gelatin can be stored at room temperature, for long term storage at -20°C. If supplied in powder then reconstitute it in 100ul water for 1mg/mL stock and store in liquid at 4oC for ~ 1week or aliquots in suitable size and store at -20oC for long term storage.

USAGE:

This item is for LABORATORY RESEARCH USE ONLY.

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