

TYPE II COLLAGEN, BOVINE, SOLUTION

0.5 MG

Catalog Number 5196

Product Description

Bovine Collagen Type II is one of a family of proteins found particularly in the flesh and connective tissues of mammals (approximately one-third of the body's total protein). Over two dozen types of collagen have been described; Type II is found predominantly in hyaline cartilage (50% of the protein in hyaline is collagen type II) and is also found in the vitreous humor of the eye.

The product is supplied as a sterile solution at approximately 0.5 mg per vial at approximately ~.50 mg/ml in 500 mM acetic acid. A certificate of Analysis is available with the purchase of each product. Type II collagen is provided in user-friendly packaging for use and storage. Type II collagen may be used to culture a variety of cell types.

Characterization

Identity/Purity: The identity and purity of Type II Bovine Collagen is qualitatively evaluated using electrophoresis (SDS-PAGE) which shows the typical banding pattern for Type II collagen.

Storage: This product is stored at 2 to 10°C and is shipped on frozen gel packs.

Stability: The product shelf life is 12 months when stored at 2 to 10°C.

pH: Supplied in 500 mM acetic acid (pH ~2.5).

Concentration: This product contains approximately 0.5 mg of bovine Type II collagen at an approximately concentration of 0.5 mg/ml. The actual concentration is printed on the product label and certificate of analysis for each specific lot.

Sterility: No growth

Purity: >90% by SDS PAGE electrophoresis

Precautions and Disclaimer

This product is for R&D use only and is not intended for human or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Procedure

Coating Procedure

Note: use these recommendations as guidelines to determine the optimal coating conditions for your culture system.

1. Remove required quantity of Type II collagen from the bottle and dispense into a dilution vessel.
2. Dilute the product with a 500 mM acetic acid solution to desired concentration.
3. Swirl contents gently until thoroughly mixed.
4. Add approximate amount of diluted Type II Collagen to the culture surface ensuring the entire surface is coated.
5. Incubate at room temperature, covered for 1-2 hours.
6. After incubation, aspirate any excess remaining material.
7. Rinse coated surface carefully with a sterile medium or balanced salt solution. Avoid scratching surfaces.
8. Aspirate remaining material from coated surface.
9. Coated culture vessels are now ready to use. The coated culture vessels may be stored at 2 to 10°C.

3D Gel preparation

1. Slowly add 1 part of chilled 10X PBS or 10X culture media to 8 parts of chilled collagen solution with gentle swirling.
2. Adjust pH of mixture to 7.2-7.6 using sterile 0.1 M NaOH. Monitor pH adjustment carefully (pH meter, phenol red or pH paper).
3. Adjust final volume to a total of 10 parts with sterile water.
4. To prevent gelation, maintain temperature of mixture at 2-10°C.
5. To form gel, warm to 37°C. Allow approximately 90 to 120 minutes for gel formation.