

## Immunization Grade Sheep Type || Collagen, Lyophilized

Catalog # 20081

For Research Use Only - Not Human or Therapeutic Use

| DESCRIPTION:      | Highly purified type II collagen (treated with 3M guanidine, DEAE-cellulose, and Na2HPO4)   |
|-------------------|---|
| APPLICATION:      | Can be used for various purposes, such as a standard for collagen analysis by SDS-gel, substrate for MMP-1, MMP-8, and MMP-13, and as an antigen for immunizing animals for developing anti-sheep type II collagen antibodies.  |
| QUANTITY:         | 5 mg  |
| FORM:             | Lyophilized powder  |
| SOURCE:           | Sheep articular cartilage   |
| MOLECULAR WEIGHT: | 300 kDa   |
| PURITY:           | >95% by SDS-PAGE, free of pepsin and proteoglycans (Figure 1)   |
| STORAGE:          | 4°C in the dark   |
| STABILITY:        | 1 year  |
| NOTES:            | Soluble in acidic buffer (maximum 4 mg/ml), but difficult to dissolve in neutral buffer. In order to dissolve this product in a neutral buffer, first dissolve collagen in 0.01M or 0.05M acetic acid at 1-4 mg/ml and then add this collagen solution to the desired neutral buffer such as 2-10X Tris-NaCl (NaCl final concentration: 0.15-0.2M) or dialyze against 1X neutral buffer at 4°C. |
|                   | NOTE 1: To avoid fibril formation under neutral conditions, keep solution on ice.   |
|                   | NOTE 2: The physicochemical property of type II collagen differs from type I collagen and type II collagen dissolved in a neutral buffer does not form a stable gel incubating at 37°C. In order to prepare a type II collagen gel, additional components such as type I collagen or other substances may be required.  |
|                   | Figure 1 - 6% SDS gel analysis of sheep type II collagen (1.25 $\mu$ g/lane), non-reducing conditions   |
|                   |   |
|                   | ← β Chain (200 Kd)  |
|                   |   |
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**REFERENCES:** 

N/A

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