Xtra-Cell™ Remilyn
Frozen Glandular Extract to Support Healthy Nerve Cell Function
With Highly Concentrated 125X Mesenchyme Extract

DESCRIPTION
Xtra-Cell™ Remilyn, provided by Douglas Laboratories®, is an innovative and proprietary frozen liquid extract consisting of selected proteins, peptides and other growth factors and signaling molecules obtained from porcine mesenchyme and nervous system tissues, as well as a specialized marine liquid cartilage extract.

FUNCTIONS
Xtra-Cell Remilyn is manufactured and purified via a patented low temperature process that involves homogenization, fractionation, and ultrafiltration of porcine mesenchyme and CNS tissues as well as marine liquid cartilage extract. The molecules present in this product are selected based on their size and molecular weight, and are isolated in their native state. Compounds found in the mesenchyme and CNS extracts are typically less than 50,000 Daltons, while the compounds present in the marine cartilage extract are less than 500,000 Daltons. Once the molecules are selected, the liquid is aseptically bottled and flash-frozen without preservatives to ensure optimal potency, freshness and bioavailability. This process can be applied to different starting materials, allowing for the creation of liquid extracts that are targeted for specific applications. The extracts created from these tissues are highly bioavailable and of the highest quality available.

The three ingredients of Remilyn are designed to provide support for the healthy functioning of the nervous system.

CNS
The central nervous system extract provides important cell signaling and growth factors that may help support proper nerve cell and nervous system function.

Mesenchyme
Mesenchyme is embryonic connective tissue composed of pluripotent cells, or cells that are undifferentiated and have the ability to evolve into almost any type of cell. The mesenchyme tissue used in Xtra-Cell Mesenchyme extract is obtained from embryonic fetal porcine tissue from which cellular growth factors and other signaling molecules are extracted. In vitro data have shown that the components present in the mesenchyme extract can support cellular metabolism as demonstrated by an increase in fibroblast mitochondrial activity in the presence of unaffected cellular proliferation (figures 1 and 2).

Liquid Cartilage Extract
Due to the presence of peptides and other signaling factors present in liquid cartilage extract, it may help to maintain the structure and function of the extracellular matrix as well as nerve cells by supporting the proper activity of a family of zinc-dependent enzymes known as matrix metalloproteinases (MMPs).* Specifically, MMP-2, MMP-9, and MMP-12 (also known as gelatinase A, gelatinase B, and metalloelastase, respectively) have been shown to be involved in the breakdown of

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the extracellular matrix, as well as disruption of the blood brain barrier and myelin degradation. Figures 3 and 4 show that LCE can support healthy MMP activity, which may in turn help support healthy nerve cell function.

**INDICATIONS**

Xtra-Cell Remilyn may be a useful dietary supplement for those who wish to support healthy cell regeneration and nerve cell functioning.

**FORMULA** (#99461)

1 bottle (0.3 oz/9 ml) contains:

- Marine Liquid Cartilage Extract (LCE) (fish) 0.16 oz (4.9 ml)
- Porcine CNS Aqueous Extract (enriched with Mesenchyme 125X) 0.1 oz (3.05 ml)
- Porcine Mesenchyme Aqueous Extract 125X 0.04 oz (1.05 ml)

**SUGGESTED USE**

As a dietary supplement, take 1 bottle per day or as directed by your healthcare professional.

**DIRECTIONS FOR USE**

Thaw bottle by holding in hand. Open bottle and drink the entire contents. Take on an empty stomach in the morning or evening either a half hour before or two hours after a meal.

**SIDE EFFECTS/WARNINGS**

This product may not be suitable for children 12 years of age or younger, pregnant or nursing women, persons who have had recent surgery, individuals taking immunosuppressants, those allergic to fish (shark) and/or pork products, or persons who have recently had a heart attach. Consult a healthcare professional before use.

**STORAGE**


**REFERENCES**


Viana GS, Moraes MO. Demonstration of inhibitory effect of oral shark cartilage on basic fibroblast growth factor-induced angiogenesis in the rabbit cornea. Biol Pharm Bull 2001 Feb;24(2):151-4


*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

† Extraction process covered under U.S. patent number 5,985,839