

**Xtra-Cell® Immunity**  
**Frozen Glandular Extracts**

**DESCRIPTION**

Xtra-Cell® Immunity, provided by Douglas Laboratories®, is an innovative and proprietary frozen liquid extract consisting of specific proteins, peptides and other growth factors and signaling molecules obtained from porcine thymus, liver and spleen tissues to support healthy functioning of the immune system. †

**FUNCTIONS**

Xtra-Cell® Immunity is manufactured and purified via a patented low temperature process that involves homogenization, fractionation, and ultrafiltration of porcine thymus, liver and spleen tissues. The molecules present in this product are selected based on their size and molecular weight (less than 50,000 Daltons), and are isolated in their native state. 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 three tissues are highly bioavailable and of high quality.

**Liver** As the body’s main detoxification organ, the liver is responsible for removing potentially harmful molecules such as alcohol, drugs and air pollutants from the blood stream. The liver also plays important roles in the synthesis of bile, carbohydrate and lipid metabolism, and production of certain coagulation factors, among its other roles. What is not as well known is that the liver also plays a role in maintaining healthy immune function, as Kupffer cells found within the liver have the ability to modulate immune function. The signaling factors present in Xtra-Cell® Immunity may help to support the immune functions and general health of the liver. †

**Spleen** The spleen is the largest lymphatic organ and is responsible among other things for trapping and eliminating blood-born pathogens. Consequently, the spleen plays a major role in the healthy functioning of the immune system. Xtra-Cell® Immunity provides spleen specific cell signaling factors and bioactive peptides to support the healthy functioning of the spleen. †

**Thymus** The thymus is integral in the maturation and maintenance of the immune system. It functions by releasing thymic factors that affect its own regulation as well as the functions of other cells throughout the body. These thymic factors (including but not limited to thymosins, thymopoietin, thymic factor X, and serum thymic factor) tend to reach their peak at puberty and decline with age. These peptides are important for the healthy maturation and activation of T lymphocytes, which can in turn activate B-lymphocytes and macrophages and contribute to a healthy immune system .† Supplementing with extracts that provide thymic factors may help in maintaining immune function. †

**INDICATIONS**

Xtra-Cell® Immunity may be a useful dietary supplement for those who wish to support the healthy functioning of the immune system. †

**FORMULA (#99458)**

1 bottle (0.3 oz/9 ml) contains

Porcine Mesenchyme Aqueous Extract 125X.....	0.19 oz (5.5 mL)
Porcine Liver Aqueous Extract (enriched with Mesenchyme 125X) .....	0.06 oz (1.75ml)
Porcine Spleen Aqueous Extract (enriched with Mesenchyme 125X) ..	0.06 oz (1.75 ml)

**SUGGESTED USE**

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

## **Xtra-Cell® Immunity**

### **Frozen Glandular Extracts**

#### **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**

This product may not be suitable for children 12 years of age or younger, pregnant or nursing women, individuals who are taking immunosuppressants, or persons allergic to pork products. Consult a healthcare professional before use.

#### **STORAGE**

Keep Frozen. Do not thaw and refreeze. Keep out of reach of children.

#### **REFERENCES**

Fujisawa, K., et al, Asian Med J 26,497-526, 1984.  
Lesnicar, G., Hepatogastroenterology 35:69, 1988  
Lin CY, Hsu HC, Chen CL, Shen EY. Ann Allergy 1987;58:379-84.  
Singh VK, Biswas S, Mathur KB, Haq W, Garg SK, Agarwal SS. Immunol Res. 1998;17(3):345-68.  
Sukhikh GT, Malaitsev VV, Bogdanova IM, Dubrovina IV. Bull Exp Biol Med. 2002 Feb;133(2):103-9.  
Valesini G, Barnaba V, Benvenuto R, et al. Eur J Cancer Clin Oncol 1987;23(12):1915-9

**For more information on Xtra-Cell® Immunity visit [douglaslabs.com](http://douglaslabs.com)**

† 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.

Manufactured by  
Douglas Laboratories  
112 Technology Drive  
Pittsburgh, PA 15275  
800-245-4440  
[douglaslabs.com](http://douglaslabs.com)



© 2016 Douglas Laboratories. All Rights Reserved.

DL99458-0217