

Pan-Ox-5™
A complete dietary enzyme formula

DESCRIPTION

Pan-Ox-5™, provided by Douglas Laboratories, is a synergistic dietary enzyme formula that is specially formulated for complete digestive support for the entire gastrointestinal system. †

FUNCTIONS

The pancreas supplies the major digestive enzymes that catalyze the breakdown of starches (carbohydrates), proteins, and fats, so that the breakdown products can be absorbed in the upper small intestine. Some carbohydrate digestion takes place in the mouth by salivary amylase, but pancreatic amylase is the major carbohydrate-digesting enzyme. Amylases break down starches to maltose and maltotriose, which are further hydrolyzed into glucose by the disaccharidases of the mucosal cells, and then absorbed. Although cellulose is indigestible by pancreatic and intestinal enzymes, the microflora within the large intestine may degrade it and produce uncomfortable symptoms in the process. Although fat digestion starts in the mouth with the action of salivary lipase, the great majority of fat triglycerides are digested by pancreatic lipase secreted by the exocrine pancreas into the duodenum. Lipases break down triglycerides into monoglycerides and free fatty acids, which are efficiently absorbed in the upper small intestine. Bile is normally secreted from the gallbladder to help aid in the digestion of lipids in the small intestine. Protein digestion is initiated in the stomach by pepsin and hydrochloric acid, which denature and break large proteins down to smaller polypeptides. In the small intestine, proteases break down these polypeptides into free amino acids, and di- and tripeptides, which are directly absorbed by the intestinal mucosa. Ingredients such as aspergillus oryza can also aid in the digestion and absorption of food. †

INDICATIONS

Pan-Ox-5™ may be a useful nutritional adjunct for individuals who wish to supplement their diets with a wide variety of digestive enzymes.

FORMULA (#7917)

Each Tablet Contains:

Betaine HCl	60 mg
Glutamic Acid	10 mg
Pancreatin (8X)	37.5 mg
(equal to 300 mg of Pancreatin)	
Pepsin (1:10,000)	9.75 mg
Papain (12,000 USP)	8 mg
Aspergillus Oryza	35 mg
Lipase	50 mg
Ox Bile Extract.....	65 mg
Vegetable Rennet.....	15 mg
Malt Diastase.....	7.5 mg
Beet Root Powder	100 mg
Citrus Pectin	12.5 mg

Other ingredients: Cellulose, vegetable stearate, myrrh gum and silica.

SUGGESTED USE

Adults take 1 tablet daily with meals or as directed by a healthcare professional.

SIDE EFFECTS

No adverse side effects have been reported.

Pan-Ox-5™

A complete dietary enzyme formula

STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

REFERENCES

- Domínguez-Muñoz JE, et al. Aliment Pharmacol Ther. 2005 Apr 15;21(8):993-1000.
- Perano SJ, et al. J Clin Endocrinol Metab. 2014 Jul;99(7):2486-93. doi:10.1210/jc.2013-4417.
- Kahl S, et al. JOP. 2014 Mar 10;15(2):165-74. doi: 10.6092/1590-8577/797.
- Nakamura S, Takami M, Tanabe K, Oku T. Int J Food Sci Nutr. 2014 Sep;65(6):754-60. doi: 10.3109/09637486.2014.908168.
- Deminice R, et al. Amino Acids. 2015 Apr;47(4):839-46. doi:10.1007/s00726-014-1913-x.
- Untersmayr E, Jensen-Jarolim E. Curr Opin Allergy Clin Immunol. 2006 Jun;6(3):214-9. Review.
- Gupta R, Beg QK, Lorenz P. Appl Microbiol Biotechnol. 2002 Jun;59(1):15-32. Epub 2002 Apr 20. Review.
- Ichishima E. Biosci Biotechnol Biochem. 2000 Apr;64(4):675-88. Review.
- Neoptolemos JP, Ghaneh P, Andren-Sandberg A, et al. Int J Pancreatol 1999;25:171-80.
- Layer P, Keller J. J Clin Gastroenterol 1999;28:3-10.
- Taylor CJ, Hillel PG, Ghosal S, et al. Arch Dis Child 1999;80:149-52.

For more information on Pan-Ox-5™ visit 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
600 Boyce Road
Pittsburgh, PA 15205
800-245-4440
douglaslabs.com



**You trust Douglas Laboratories.
Your patients trust you.**