



• **A TASTY, FLAVORED POWDER**, conveniently administered according to weight by adding directly to food

- Flavored with hydrolyzed chicken protein

• **AVAILABLE IN PUPPY AND ADULT FORMULATIONS:**

- Imuquin™ Puppy for Dogs younger than 6 months
- Imuquin™ for Dogs 6 months and older

• **SOLD IN CARTONS OF 30 INDIVIDUAL PACKETS**

- Contents of packet(s) are sprinkled directly onto puppy's or dog's food once daily according to the chart below. Imuquin™ Puppy should be administered through puppyhood (6 months) or as recommended by a veterinarian. Imuquin™ (adult) should be used a minimum of 21 days or as recommended by a veterinarian



ACTIVE INGREDIENTS:

- Beta (1,3)/(1,6) Glucan
- Omega 3 PUFAs, including EPA and DHA
- Vitamins:
 - A, D3, E, Thiamine, Riboflavin, Niacin, Pyridoxine, Cobalamin
- Minerals:
 - Calcium, Phosphorus, Iron, Copper, Manganese, Zinc

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- 11 Data on file. Nutramax Laboratories Veterinary Sciences, Inc. 2017.

NEW!



FORMULATED TO PROVIDE IMMUNE SUPPORT TO PUPPIES AND DOGS

with Beta (1,3)/(1,6) Glucan



Long awaited...here at last!

imuquin.com

nutramax[®]
LABORATORIES
VETERINARY SCIENCES, INC.

946 Quality Drive • Lancaster, SC 29720
nutramaxlabs.com • 1-888-886-6442

	Dog's Weight (lbs.)	Number of Packets per Day	Number of Days Supplied in One Carton
Imuquin™ Puppy	3 – 20	1	30
	21 – 40	2	15
	41 – 60	3	10
Imuquin™ for Dogs 6 months and older	10 – 60	1	30
	61 – 120	2	15

A HEALTHY IMMUNE SYSTEM IS ESSENTIAL TO LIFE

THE IMMUNE SYSTEM

- Complicated organization of multiple interlinked defense mechanisms made up of organs, various cells and many molecules, working together to ensure freedom from disease
- A dog's defense against assaults by infectious organisms—bacteria, viruses, fungi, and parasites. It even plays an important role in protecting against neoplasia
- Complexity creates opportunity for dysfunction and loss of protection

CAUSES OF IMMUNE SYSTEM BREAKDOWN ARE MANY^{1,2}

- Physical or psychological stress
 - Working dogs, or from trauma, prolonged pain, hospitalization, boarding, separation anxiety, weaning, adoption, travel, etc.
- Aging—immune senescence
- Underlying illness or metabolic disease
- Malnourishment
- Failure of maternal protection
- Inadequate vaccination history
- Exposure to environmental toxins
- Vitamin /mineral deficiencies

IMUQUIN™ AND IMUQUIN™ PUPPY

NMX580™, a proprietary blend of oral Beta (1,3)/(1,6) Glucan and marine lipids

Two unique supplements, formulated to provide immune health support to puppies and dogs of any age

imuquin
IMMUNE HEALTH SUPPLEMENT



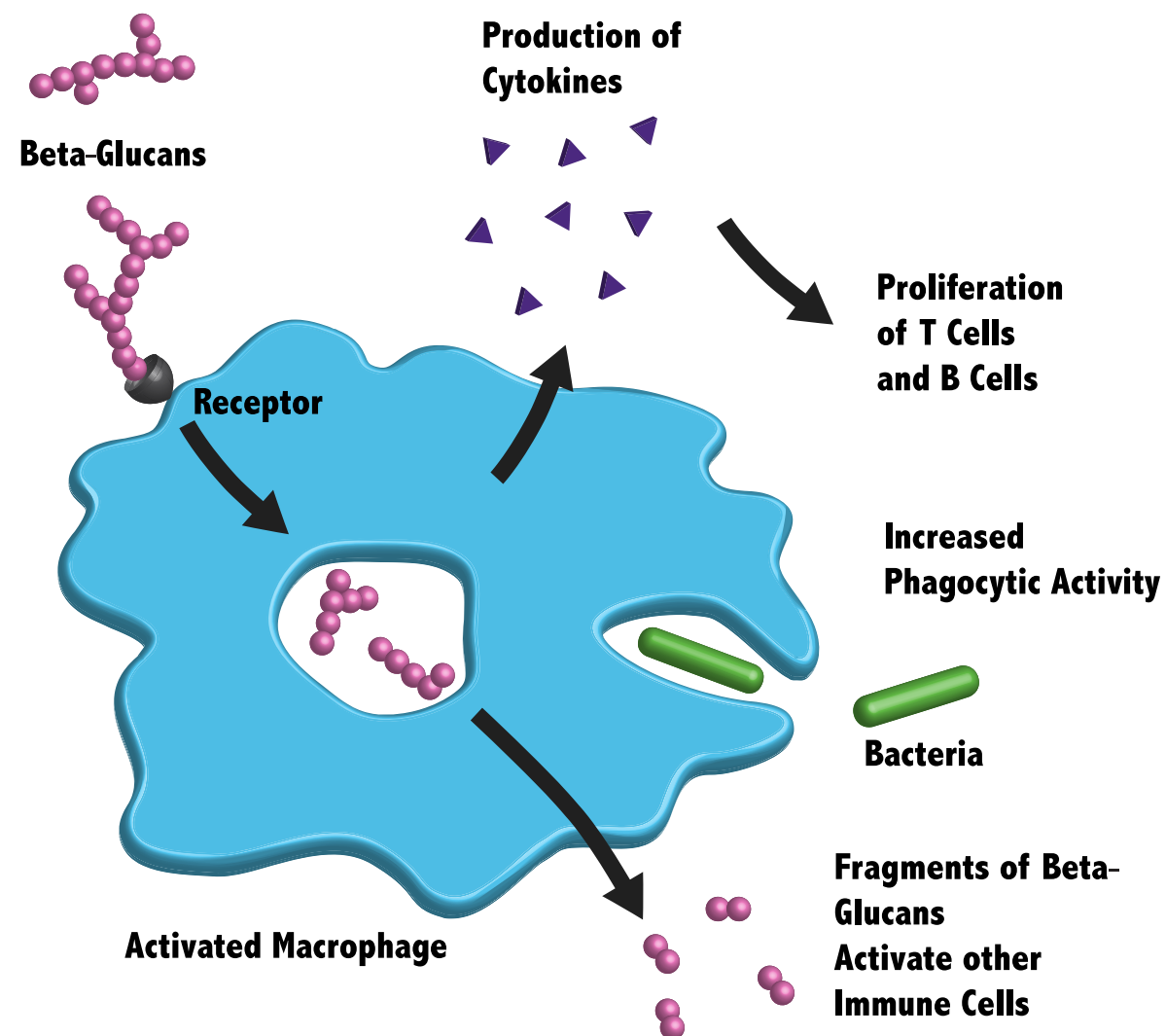
imuquin
IMMUNE HEALTH SUPPLEMENT

PUPPY



BETA (1,3)/(1,6) GLUCAN — THE MOST ACTIVE FORM

- Beta-glucans are polysaccharides: chains of linked glucose molecules found in cell membranes of yeast, molds, mushrooms, and cereal grains.³
 - Vary in biological activity depending on configuration of bonds
- Beta (1,3)/(1,6) glucan is extracted from the cell wall of *Saccharomyces cerevisiae* (brewer's yeast)⁴
 - Linked at 1,3 carbons, and with branched 1,6 side chains
- Specific architecture gives the yeast-derived beta-glucan molecule desirable biological activity⁵
 - Biologically active compound
 - Recognized by cellular receptors as foreign^{6,7}
 - Oral application
 - Supports normal immune system function



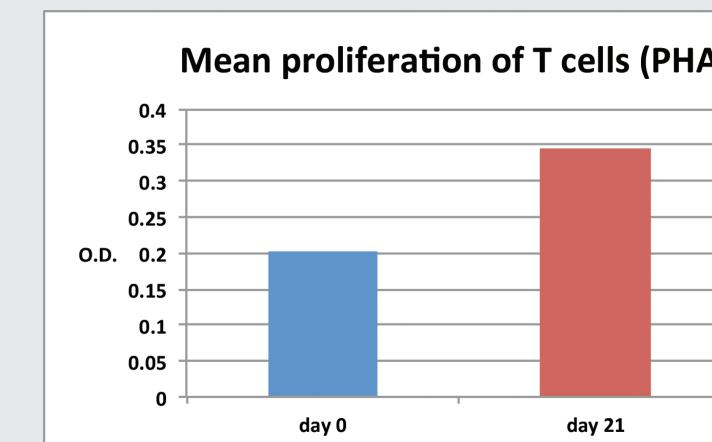
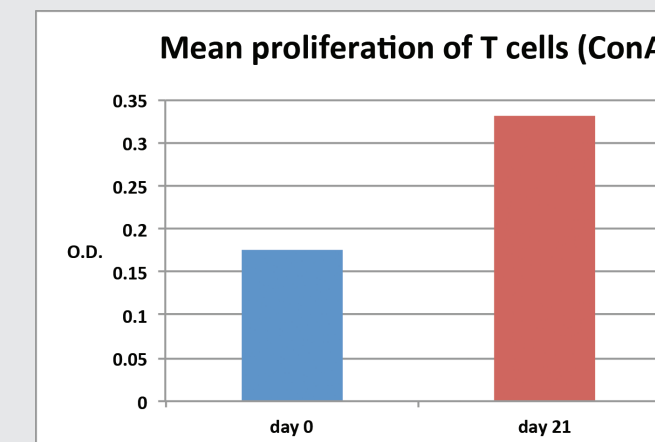
MARINE LIPIDS

- Source of omega-3 polyunsaturated fatty acids (PUFAs)
 - EPA (eicosapentaenoic acid)
 - DHA (docosahexaenoic acid)
- Help to support a healthy inflammatory response⁸
- DHA is important to nervous system and retinal development

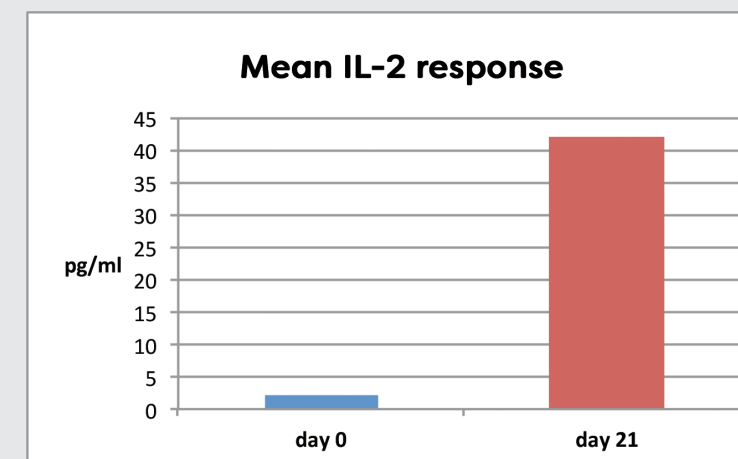
VITAMINS AND MINERALS

- Adequate intakes of vitamins and minerals are required for the immune system to function efficiently⁹
 - Supplemental Vitamin E may act as a significant stimulus of immunity¹⁰
- Vitamins A and D play important roles in cell mediated immunity and humoral antibody response⁹

Evaluation of Canine Biomarkers Following Oral Administration of Beta-glucan¹¹ In Dogs



Serum samples were drawn on day 0 and after 21 days of supplementation with beta-glucan. Serum samples were treated with either ConA (concanavalin A) or PHA (phytohaemagglutinin) which stimulates proliferation of T cells. **The increase in T cell density on day 21 vs day 0 indicates immune potentiation above that of ConA or PHA in response to the administration of beta-glucan.**



Measurement of IL-2 in serum before and after 21 days administration of beta-glucan. IL-2 regulates the growth, proliferation, and differentiation of T cells. **An increase in IL-2 indicates stimulation of cellular immunity in response to administration of beta-glucan.**

