Advanced Protocol®
Verified - 150 IF

5V01*

DESCRIPTION

Advanced Protocol® Verified 150 IF Diet is a Constant Nutrition® formulation providing 20% protein for rats and mice in protocols where moderate dietary estrogenic activity is a concern. This diet is formulated using the unique and innovative concept of Constant Nutrition®, paired with the selection of highest quality ingredients to assure minimal inherent biological variation in long-term studies.

Features and Benefits

- Constant Nutrition® formula helps minimize nutritional variables
- Formulated with 20% protein
- Verified to contain less than 150 ppm total isoflavones (genistein, daidzein and glycitein)
- Provides proper nutrients without affecting outcome in moderately estrogen-sensitive protocols as shown in the accompanying table
- Precision processing assures Constant Nutrition® quality

Product Forms Available

- Oval pellets, 10 mm x 16 mm x 25 mm length (3/8"x5/8"x1")
- Meal (ground pellets), special order

Other Versions Available

- 5V07: Advanced Protocol Extruded Verified, Auto - 150 IF Diet
- 5V10: Advanced Protocol Extruded Verified - 150 IF Diet

Rat Strain Reproductive Performance

Born/Pair	5001	5V00	5V01
Inbred	24	20	30
Outbred	39	44	39
Weaned/Pair			
Inbred	18 $_{a,b}$	12 $_{a}$	12 $_{b}$
Outbred	25	26	25

a,b Means in a row without common letters are significantly different (P<.05).

5001 Laboratory Rodent diet
5V00 Advance Protocol® Verified - 50 IF

Inbred (Fischer-344) rats fed 5V01 (<150 ppm total isoflavones) produced litters comparable to those fed LabDiet 5001 (approximately 400 ppm total isoflavones) at birth and weaning. Inbred animals consuming 5V00 produced fewer pups at weaning.

No differences in reproductive performance were observed in outbred rats.

Diets for production can be too low in isoflavones to produce optimum litters, as shown with the inbred rats.

Inbred rats on moderately estrogen-sensitive protocols should be fed 5V01 to maintain sound reproductive performance, while controlling the dietary estrogenic activity.

Outbred rats can be fed diets ranging from 50 in excess of 400 ppm isoflavones without a change in reproductive performance.

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GUARANTEED ANALYSIS

Crude protein not less than 20.0%
Crude fat not less than 4.5%
Crude fiber not more than 4.0%

INGREDIENTS

Ground wheat, corn gluten meal, wheat middlings, ground corn, ground oats, cane molasses, wheat germ, dried beet pulp, dried whey, soy protein concentrate, soybean oil, calcium carbonate, dehulled soybean meal, dicalcium phosphate, monocalcium phosphate, casein, salt, L-lysine, DL-methionine, choline chloride, menadione dimethylpyrimidinol bisulfite, pyridoxine hydrochloride, chromium potassium sulfate, potassium chloride, tocopherols (a preservative), L-tryptophan, cholecalciferol, vitamin A acetate, biotin, dl-alpha tocopheryl acetate, folic acid, thiamin mononitrate, vitamin B_{12} supplement, calcium pantothenate, nicotinic acid, riboflavin, zinc oxide, manganous oxide, ferrous carbonate, copper sulfate, zinc sulfate, calcium iodate, cobalt carbonate, sodium selenite.

FEEDING DIRECTIONS

Feed ad libitum. Plenty of fresh, clean water should be available to the animals at all times.

Rats-All rats will eat varying amounts of feed depending on their genetic origin. Larger strains will eat up to 30 grams per day. Smaller strains will eat up to 15 grams per day. Feeders in rat cages should be designed to hold two to three days supply of feed at one time.

Mice-Adult mice will eat up to 5 grams of pelleted ration daily. Some of the larger strains may eat as much as 8 grams per day per animal. Feed should be available on a free choice basis in wire feeders above the floor of the cage.

Hamsters-Adults will eat up to 14 grams per day.

CHEMICAL COMPOSITION[1]

Nutrients[2]

Protein, % 20.4
Arginine, % 0.98
Cystine, % 0.38
Glycine, % 0.67
Histidine, % 0.44
Isoleucine, % 0.99
Leucine, % 2.21
Lysine, % 1.03
Methionine, % 0.60
Phenylalanine, % 1.09
Tyrosine, % 0.77
Threonine, % 0.75
Tryptophan, % 0.24
Valine, % 1.01
Serine, % 0.98
Aspartic Acid, % 1.52
Glutamic Acid, % 4.78
Alanine, % 1.15
Proline, % 1.76
Taurine, % 0.00
Fat (ether extract), % 5.0
Fat (acid hydrolysis), % 5.7
Cholesterol, ppm 0.00
Linoleic Acid, % 2.68
Linolenic Acid, % 0.30
Arachidonic Acid, % 0.00
Omega-3 Fatty Acids, % 0.32
Total Saturated Fatty Acids, % .0.90
Total Monounsaturated Fatty Acids, % 1.15
Fiber (Crude), % 4.3
Neutral Detergent Fiber[3], % . . .16.3
Acid Detergent Fiber[4], % 5.9
Nitrogen-Free Extract (by difference), % 53.9
Starch, % 31.2
Glucose, % 0.08
Fructose, % 0.08
Sucrose, % 2.61
Lactose, % 2.57
Total Digestible Nutrients, % .76.4
Gross Energy, kcal/gm 4.06
Physiological Fuel Value[5], kcal/gm 3.40
Metabolizable Energy, kcal/gm 3.19

Minerals

Ash, % 6.5
Calcium, % 1.15
Phosphorus, % 0.60
Phosphorus (non-phytate), % . .0.36
Potassium, % 0.77
Magnesium, % 0.18
Sulfur, % 0.28
Sodium, % 0.30
Chlorine, % 0.61
Fluorine, ppm 17
Iron, ppm 230
Zinc, ppm 130
Manganese, ppm 130
Copper, ppm 16
Cobalt, ppm 0.72
Iodine, ppm 1.49
Chromium, ppm 1.60
Selenium, ppm 0.37

Vitamins

Carotene, ppm 1.7
Vitamin K (as menadione),ppm .4.0
Thiamin Hydrochloride, ppm . . .12
Riboflavin, ppm 7.5
Niacin, ppm 85
Pantothenic Acid, ppm 17
Choline Chloride, ppm 2000
Folic Acid, ppm 2.6
Pyridoxine, ppm 9.2
Biotin, ppm 0.30
B_{12}, mcg/kg 51
Vitamin A, IU/gm 15
Vitamin D_3 (added), IU/gm 2.2
Vitamin E, IU/kg 68
Ascorbic Acid, mg/gm . . . . . .—

Calories provided by:

Protein, % 23.984
Fat (ether extract), % 13.096
Carbohydrates, % 62.919

*Product Code

1. Formulation based on calculated values from the latest ingredient analysis information. Since nutrient composition of natural ingredients varies and some nutrient loss will occur due to manufacturing processes, analysis will differ accordingly.
2. Nutrients expressed as percent of ration except where otherwise indicated. Moisture content is assumed to be 10.0% for the purpose of calculations.
3. NDF = approximately cellulose, hemi-cellulose and lignin.
4. ADF = approximately cellulose and lignin.
5. Physiological Fuel Value (kcal/gm) = Sum of decimal fractions of protein, fat and carbohydrate (use Nitrogen Free Extract) x 4,9,4 kcal/gm respectively.