# S.O.D. (Superoxide Dismutase)

### Antioxidant

### DESCRIPTION

S.O.D. contains 2,000 units of superoxide dismutase antioxidant enzyme derived from porcine liver extract in an acid-resistant capsule that provides both protection in stomach acid and pH targeted release in intestinal fluid.

### **FUNCTIONS**

Body cells and tissues are vulnerable to free radical damage and reactive oxygen species which are produced during normal oxygen metabolism, by other chemical reactions, and by unwanted agents in the environment. Free radicals, once formed, are capable of disrupting metabolic activity and cell structure. When this occurs, additional free radicals are produced which, in turn, can alter cells and tissues, particularly the oxidation of DNA, proteins, and membrane lipids. The uncontrolled production of free radicals is thought to be a major contributing factor to oxidative damage.

Superoxide dismutase (SOD) is a prime antioxidant enzyme found in two forms. One, complexed with zinc and copper, is localized in the cytosol, while the other, bound with manganese, is found in the mitochondrial matrix. Both forms of this metalloenzyme catalyze the inactivation of unwanted reactive oxygen species by converting them to hydrogen peroxide which is then transformed to water and oxygen by the enzyme catalase. Superoxide dismutase has been shown to be useful in joint, gastrointestinal, mitochondrial and respiratory health.†

### **INDICATIONS**

S.O.D. (Superoxide Dismutase) is indicated for those who wish to supplement their diet with antioxidant enzymes.

## FORMULA (#202212-100X)

Each Vegetarian Capsule Contains:
Superoxide Dismutase .................250 mg (supplying 2,000 MFU\*) (from porcine liver extract)

Other ingredients: Capsule (hypromellose, gellan gum, water), cellulose, vegetable stearate. \*MFU= McCord-Fridovitch Units

### SUGGESTED USE

Adults take 1 capsule daily or as directed by a healthcare professional.

### SIDE EFFECTS

No adverse side effects have been reported.

#### **STORAGE**

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

## S.O.D. (Superoxide Dismutase)

### Antioxidant

### REFERENCES

Notin C, Vallon L, Desbordes F, Leleu C. Equine Veterinary Journal. Supplement [serial online]. November 2010;(38):375-381.

Skarpanska-Stejnborn A, et al. Journal Of Sport Nutrition And Exercise Metabolism [serial online]. April 2011;21(2):124-134.

Güven O, Tekin U, Durak I, Keller E, Hatipoglu M. Journal Of Oral And Maxillofacial Surgery: Official Journal Of The American Association Of Oral And Maxillofacial Surgeons [serial online]. October 2007;65(10):1940-1943.

Gavriilidis C, Miwa S, von Zglinicki T, Taylor R, Young D. Arthritis And Rheumatism [serial online]. February 2013;65(2):378-387.

Intes L, et al. Journal Of Biotechnology [serial online]. May 31, 2012;159(1-2):99-107.

Davis JM, Rosenfeld WN, Richter SE, et al. Pediatrics 1997;100:24-30.

Edsmyr F, Menander-Huber KB. Eur J Rheumatol Inflamm 1981;4:228-36.

Emerit J, Pelletier S, Tosoni-Verlignue D, et al. Free Radic Biol Med 1989;7:145-9.

Flohe L. Mol Cell Biochem 1988;84:123-31.

Garcia-Gonzalez A, Morales-Hernandez RC, Porta-Gandara MA, et al. Rev Invest Clin 2000;52:156-60.

Lund-Olesen K, Menander-Huber KB. Arzneimittelforschung 1983;33:1199-203.

Maksimenko AV, Tischenko EG, Golubykh VL. Cardiovasc Drugs Ther 1999;13:479-84.

Ratcheva I, Stefanova Z, Vesselinova A, et al. Pharmazie 2000;55:533-7.

Sweet DG, Halliday HL. Paediatr Drugs 1999;1:19-30.

Zidenberg-Cherr S, Keen CL, Lonnerdal B, et al. Am J Clin Nutr 1983;37:5-7.

### For more information on S.O.D. 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

