Pyridoxal-5-Phosphate
Vitamin B₆ in Coenzyme Form

DESCRIPTION
Pyridoxal-5-Phosphate tablets, provided by Douglas Laboratories®, contain 50 mg of pure pyridoxal-5-phosphate, a metabolite of vitamin B₆.

FUNCTIONS
The biological functions of vitamin B₆ (pyridoxine) are accomplished by its coenzyme form, pyridoxal-5-phosphate. Pyridoxal-5-phosphate’s actions mainly involve the metabolism of amino acids and other nitrogen compounds. In the liver, pyridoxal-5-phosphate is essential for glucose production from amino acids through its role as a coenzyme for the transaminase enzymes. Pyridoxal-5-phosphate is also needed in the liver and muscles to access stored glycogen for glucose production, and to synthesize niacin from the amino acid tryptophan. In red blood cells, pyridoxal-5-phosphate is needed for hemoglobin synthesis, and regulation of oxygen affinity. Moreover, cell receptivity to steroid hormones is influenced by pyridoxal-5-phosphate.

In the nervous system, pyridoxal-5-phosphate is needed for synthesis of several neurotransmitters, including serotonin (from tryptophan), taurine, dopamine, norepinephrine, histamine, and gamma-aminobutyric acid (GABA). Many experimental and clinical observations support the fact that dietary vitamin B₆ is required to maintain normal nervous system function.

Along with vitamin B₁₂ and folic acid, pyridoxal-5-phosphate is involved in single carbon metabolism, and is necessary for maintaining normal plasma homocysteine levels. Elevated plasma homocysteine may be an independent risk factor for the development of cardiovascular disease. Also, due to its involvement in single carbon metabolism, pyridoxal-5-phosphate assists in maintaining normal immune function.

INDICATIONS
Pyridoxal-5-Phosphate tablets may be a useful nutritional adjunct for individuals who wish to increase their intake of vitamin B₆.

FORMULA (PYP)
Each tablet contains:
Pyridoxal-5-Phosphate..................................50 mg

SUGGESTED USE
One tablet daily, or as directed by physician.

SIDE EFFECTS
No adverse effects have been reported.

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

REFERENCES


Naurath HJ, Joosten E, Riether R, Stabler SP, Allen RH, Lindenbaum J.

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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
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