



**Product Name:** Vinpocetine  
**Other Name:** Voacanga Africana  
Extract, Vinca minor Extract  
**Active Ingredient:** Vinpocetine  
**Specification:** 99% HPLC  
**CAS No.:** 42971-09-5  
**Molecular Formula:** C<sub>22</sub>H<sub>26</sub>N<sub>2</sub>O<sub>2</sub>  
**Molecular Weight:** 350.5  
**Botanical Source:** The Seeds of  
Voacanga Africana Stapf  
**Appearance:** White

### What is

Vinpocetine (brand names: Cavinton, Intelectol; chemical name: ethyl apovincamate) is a semisynthetic derivative of the vinca alkaloid vincamine (sometimes described as "a synthetic ethyl ester of apovincamine"),[2] an extract from the lesser periwinkle plant.[3] Vinpocetine was first isolated from the plant in 1975 by the Hungarian chemist Csaba Szántay. The mass production of the synthetic drug was started in 1978 by the Hungarian pharmaceutical company Richter Gedeon.

Vinpocetine is reported to have cerebral blood-flow enhancing[4] and neuroprotective effects,[5] and is used as a drug in Eastern Europe for the treatment of cerebrovascular disorders and age-related memory impairment.[6]

Vinpocetine is not approved in the United States for pharmaceutical use, but it can be sold as a dietary supplement.[citation needed] Vinpocetine is widely marketed as a supplement for vasodilation and as a nootropic for the improvement of memory and cerebral metabolism. Vinpocetine has been identified as a potent anti-inflammatory agent that might have a potential role in the treatment of Parkinson's disease and Alzheimer's disease.

### Function

1. Increases blood flow,
2. Increases the rate at which brain cells produce ATP (which is a cell molecule that creates energy),
3. Speeds up the use of glucose in the brain. Regulates Sodium/ Potassium channels,
4. Speeds up the use of oxygen in the brain,
5. Vinpocetine increases levels of neurotransmitters involved in memory.

### Anti-inflammatory action

Vinpocetine has been identified as a novel anti-inflammatory agent.[7][8] Vinpocetine inhibits the up-regulation of NF- $\kappa$ B by TNF $\alpha$  in various cell tests. Reverse transcription polymerase chain reaction also shows that it reduced the TNF $\alpha$ -induced expression of the mRNA of proinflammatory molecules such as interleukin-1 beta, monocyte chemoattractant protein-1 (MCP-1), and vascular cell adhesion molecule-1 (VCAM-1). In mice, vinpocetine reduced lipopolysaccharide inoculation induced polymorphonuclear neutrophil infiltration into the lung.[7][8] Neuroinflammatory processes can result in neuronal death in Parkinson's disease (PD) and Alzheimer's disease (AD). It has been suggested that "it would be interesting to test whether vinpocetine's antiinflammatory properties would have a protective effect in models of neurodegenerative conditions such as AD and PD.

