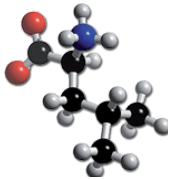
EQUISTRO®



Description: Leucine is an essential amino acid. This means that it must be obtained through the diet in adequate quantities to meet the body's needs. Leucine is a member of the branched-chain amino acid family, along with valine and isoleucine. The three branched-chain amino acids constitute approximately 70 percent of the amino acids in the body proteins. L-leucine is obtained by the hydrolysis of protein by pancreatic enzymes during digestion and necessary for optimal growth in the youngest and for the maintenance of nitrogen balance in adults.

Function: L-leucine is not only a building block of protein, it is THE key essential amino acid of muscle metabolism. Recent scientific researches prove that L-leucine is unique among amino acids for its regulatory role in muscle metabolism. It controls glycemic (sugar) regulation, participates to the energy production in cell mitochondria (power production organs within the cell) for muscular contraction and is a key factor leading to the stimulation of cellular processes for protein synthesis in muscle. Much research has focused on the effect of BCAAs on neurotransmitters in the brain, that appear to modulate the activity of serotonin. During times of starvation, stress, infection, or recovery from trauma and surgery, the body mobilizes leucine as a source for gluconeogenesis (the synthesis of blood sugar in the liver) to aid in the healing process. So, it has recently been suggested that leucine may have beneficial therapeutic effects on the prevention of protein wasting occurring in these cases.

Sources: L-leucine reaches muscle in direct proportion to its dietary intake. For horses, L-Leucine and other BCAAs are found in plant proteins. Especially high sources include dairy, potato and soy proteins.

Requirements: Horses usually acquire sufficient leucine from their diet, but athletic horses, growing foals, convalescent and older horses may benefit from leucine supplementation.

Deficiency: The effects of essential amino acid deficiency are generally nonspecific, and many of the signs do not differ from the effects of partial or total caloric restriction. In general, the horse will have poor quality hair and hoof growth, weight loss, and inappetence. Milk production is decreased in lactating mares. BCAA deficiency may lead to early onset of fatigue during exercise.

Excess: Excess can't occur with a well-balanced diet. In case of excessive protein intake, the owner will not be face only with a leucine excess but with a whole protein excess, leading to decreased performance, ammonia excretion and water consumption increase.

When problems may occur? In case of training and competition activities without corresponding daily required protein intake in the diet. The horse will lose weight and overall muscle mass, leading to low performance.

# L-LEUCINE

Vétoquinol

Signe de Passion