

AstraGin[®] Mechanism of Action

A

INCREASES NUTRIENT ABSORPTION

Increases Absorption Transporters

Higher expression level of an absorption regulating mRNA will lead to more of the transporter(s) it regulates, such as CAT1 mRNA regulates the production of CAT1 transporter

1

Increases mRNA Expression Level

Increases the expression level of many absorption regulating mRNA, such as CAT1 for the absorption of cationic amino acids

2

Specific Nutrients

More specific absorption transporter allows more specific nutrients to be absorbed through the wall of the small intestine so it can be transported to the blood stream, such as more CAT1 transporter causes more L-arginine, L-lysine, and L-histidine to be absorbed. Only when a nutrient reaches the blood stream can it become available to the 37 trillion cells in the human body

3

IN-VITRO

Peptides & amino acids: ↑41 %
Beta-alanine: ↑26%
Folate: ↑50%
Curcumin-lecithin: ↑92% in 2hrs
Omega-7 fatty acid: ↑39% (ALIC) in 30min

Agmatine: ↑36%
Citrulline: ↑45%
Fish oil: ↑100% (ALIC) in 20min
Glucosamine: ↑23% in 10min

Arginine: ↑67%
Creatine: ↑33%
Flax oil: ↑58% (ALIC) in 20min
Leucine: ↑58% in 15min
Tryptophan: ↑53%

IN-VIVO (TNBS-INDUCED COLITIS RATS)

Arginine: ↑31 %
Ileum CAT1 protein: ↑151 %
Lysine: ↑38%

Histidine: ↑22%
Jejunum mRNA: ↑22%

Ileum mRNA: ↑8% Jejunum
CAT1 protein: ↑25%

B

RESTORES ABSORPTION FUNCTION BY DECREASING INFLAMMATION IN THE INTESTINAL WALL

1

Restores Absorption Function by Decreasing Inflammation in the Intestinal Wall

Repairs damaged intestinal wall in TNBS-induced colitis rats where most absorption occurs by decreasing MPO (a surrogate marker of inflammation) by ↓F3% (in-vivo)

