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The transport of glutamine into rat mesenteric lymphocytes.

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Abstract

The transport of glutamine into isolated rat mesenteric lymphocytes was studied. This transport appears to be dependent upon the Na⁺ gradient. The K_m for glutamine transport was about 1.0 mM. A large number of amino acids were shown to inhibit the rate of transport of both serine and glutamine into lymphocytes. The transport of glutamine was competitively inhibited by serine and that for serine was similarly inhibited by glutamine. In contrast, histidine and 2-(methylamino)isobutyrate inhibited the transport of both serine and glutamine noncompetitively. It is concluded that glutamine is transported into rat mesenteric lymphocytes by a process similar to System ASC described for other cells