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A STUDY OF SYNTHESIS OF PICOLINIC ACID WITH BIOLOGICAL ACTIVITY

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ABSTRACT

Picolinic Acid is an endogenous metabolite of L-tryptophan (TRP) that has been reported to possess a wide range of neuroprotective, immunological, and anti-proliferative affects within the body. However the salient physiological function of this molecule is yet to be established. The synthesis of picolinic acid as a product of the kynurenine pathway (KP) suggests that, similar to other KP metabolites, picolinic acid may play a role in the pathogenesis of inflammatory disorders within the CNS and possibly other organs. In this paper we review the limited body of literature dealing with the physiological actions of picolinic acid in the CNS and its associated synthesis via the kynurenine pathway in health and disease. Discrepancies and gaps in our current knowledge of picolinic acid are identified highlighting areas of research to promote a more complete understanding of its endogenous function in the brain.

Keywords: Picolinic Acid, Metabolite of L-tryptophan (TRP), Neuroprotective,