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MAT2A Inhibitor AG-270

National Cancer Institute

Source

National Cancer Institute. *MAT2A Inhibitor AG-270*. NCI Thesaurus. Code C153180.

An orally available small molecule inhibitor of methionine adenosyltransferase II alpha (MAT2A) with potential antineoplastic activity. Upon administration, AG-270 inhibits the activity of MAT2A, a metabolic enzyme responsible for the production of S-Adenosyl-L-methionine (SAM), a primary donor of methyl groups in cellular transmethylation reactions that regulate gene expression, cell growth, and differentiation. MAT2A activity is selectively essential in cancer cells deficient in methylthioadenosine phosphorylase (MTAP), a critical enzyme in the methionine salvage pathway, that is deleted in some human cancers. Inhibition of MAT2A may potentially inhibit tumor cell growth in MTAP-deleted cancers that rely heavily on SAM synthesis.