

## S-adenosylmethionine synthetase, Recombinant

### Product Information

<b>Cat#</b>	NATE-1151
<b>Abbr</b>	MAT, Recombinant
<b>Alias</b>	MAT
<b>Similar</b>	MAT
<b>Description</b>	S-adenosylmethionine synthetase (EC 2.5.1.6) (also known as methionine adenosyltransferase (MAT)) is an enzyme that creates S-adenosylmethionine (AdoMet) by reacting methionine (a non-polar amino acid) and ATP (the basic currency of energy). AdoMet is a methyl donor for transmethylation. It gives away its methyl group and is also the propylamino donor in polyamine biosynthesis. S-adenosylmethionine synthetase can be considered the rate-limiting step of the methionine cycle.
<b>Appearance</b>	White powder, lyophilized
<b>Product Overview</b>	S-adenosylmethionine (SAM) is a methyl donor and allows DNA methylation. Once DNA is methylated, it switches the genes off and therefore, S-adenosylmethionine can be considered to control gene expression. SAM is also involved in gene transcription, cell proliferation, and production of secondary metabolites. Hence SAM synthetase is fast becoming a drug target, in particular for the following diseases: depression, dementia, vacuolar myelopathy, liver injury, migraine, osteoarthritis, and as a potential cancer chemopreventive agent.
<b>Form</b>	Freeze dried powder
<b>Enzyme Commission Number</b>	EC 2.5.1.6
<b>Activity</b>	>700U/mg
<b>Molecular Weight</b>	About 46kDa (SDS-PAGE detection)
<b>Purity</b>	>90% (SDS-PAGE test)

## S-adenosylmethionine synthetase, Recombinant

<b>Isoelectric point</b>	4.7
<b>pH Stability</b>	7.0-9.5
<b>Storage</b>	Redissolved in 30% glycerol, 4°C, store at -20°C/-80°C for long-term preservation, Avoid multiple freeze-thaw cycles.
<b>Buffer</b>	Tris buffer, pH8.0
<b>Synonyms</b>	EC 2.5.1.6; MAT; MATA1; SAMS; SAMS1; Methionine adenosyltransferase 1; S-adenosylmethioninesynthase isoform type-1; AdoMet synthase 1; MAT 1; Methionineadenosyltransferase I/III; MAT-I/III; MAT1A; AMS1