Creative Enzymes
Diagnostic Enzymes

# Recombinant Methionine Adenosyl Transferase (MAT)

## Product Information

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| **Cat#** | BDE-048 |
| **Description** | S-adenosylmethionine synthase (MAT) catalyzes the synthesis of S-adenosylmethionine (SAM) from ATP and methionine. SAM serves as a universal methyl donor in transmethylation reactions and is converted to S-adenosylhomocysteine upon methyl group transfer. Most SAM is produced in the liver. |
| **Applications** | Used in homocysteine assay kits to catalyze the conversion of methionine to SAH for downstream reactions. |
| **Enzyme Commission Number** | EC 2.5.1.6 |
| **Form** | Lyophilized powder |
| **Source** | Recombinant microbial proteins |
| **Activity** | 700 U/mg |
| **Unit Definition** | One unit is defined as the amount of enzyme required to produce 1 μmol of S-adenosylmethionine per minute under specified assay conditions (37 °C, pH 8.0). |
| **Molecular Weight** | 46 kDa (SDS-PAGE) |
| **Purity** | ≥ 95% by SDS-PAGE |
| **Optimum pH** | 7.0-9.5 |
| **Isoelectric Point** | 4.7 |
| **Storage** | Store at -20°C for at least one year, or at -80°C for two years. |
| **Notes** | It can be resuspended in purified water containing 30% glycerol and stored at 4°C for approximately one year; After aliquoting according to usage, store at -20°C for up to two years; avoid repeated freeze-thaw cycles as much as possible. |

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