Recombinant AS3MT protein (His tag)

Catalog Number	545990
Synonyms	Methylarsonite methyltransferase; S-adenosyl-L-methionine:arsenic(III) methyltransferase
Species	Human
Expression System	E. coli
Accession	Q9HBK9
Molecular Weight	Predictes a molecular mass of 43.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	1-375
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-375 aa (Q9HBK9) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	This product is a recombinant fragment of human Arsenite methyltransferase (AS3MT), encompassing residues 1-375. It represents a stable and soluble unit of the enzyme, ideal for structural studies and biochemical assays investigating arsenic methylation pathways. Arsenite methyltransferase (EC 2.1.1.137) catalyzes the methylation of trivalent arsenicals using S-adenosyl-L-methionine as a methyl donor. It sequentially methylates arsenite to methylarsonate, which is reduced to methylarsonite, and further methylates methylarsonite to form the less toxic dimethylarsinate (cacodylate). This detoxification pathway highlights the enzyme's critical role in arsenic metabolism. The full-length protein is localized to the cytoplasm and cytosol, where it performs these essential biotransformation reactions.