
Product Data Sheet

Product Name: SAT1 Human
 Cat. No.: GP22238
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Diamine acetyltransferase 1; Spermidine/spermine N(1)-acetyltransferase 1; Putrescine acetyltransferase; Polyamine N-acetyltransferase 1; SSAT-1; SSAT; SAT1; SAT; DC21; KFSD; KFSDX.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MAKFVIRPAT AADCSDILRL IKELAKYEYM EEQVILTEKD LLEDGFGEHP FYHCLVAEVP KEHWTPEGHS IVGFAMYYFT YDPWIGKLLY LEDFFVMSDY RGF GIGSEIL KNLSQVAMRC RCSSMHFLVA EWNEPSINFY KRRGASDLSS EEGWRLF KID KEYLLKMATE E.		
Formulation	The SAT1 solution contains 20mM Tris-HCl buffer (pH8.0) and 10% glycerol.		

Introduction

SAT-1 is a member the acetyltransferase family, and is a rate-limiting enzyme in the catabolic pathway of polyamine metabolism. SAT1 catalyzes the acetylation of spermidine and spermine, and is involved in the regulation of the intracellular concentration of polyamines and their transport out of cells. Therefore, SAT-1's role is essential in polyamine homeostasis, given that acetylated products are either excreted from the cell or oxidized by acetylpolyamine oxidase. Increased SAT1 activity causes variety of other effects which include pancreatic cells death, obstruction of regenerative tissue growth, behavioral changes, keratosis follicularis spinulosa decalvans (KFSD), and hair loss. Defects in the SAT1 gene are linked to KFSD (keratosis follicularis spinulosa decalvans), which is a rare X-linked disorder affecting the skin and the eye. The KFSD affected men show thickening of the skin of the neck, ears, and extremities, particularly the palms and soles, loss of eyebrows, eyelashes and beard, thickening of the eyelids with blepharitis and ectropion, and corneal degeneration. Even though the majority of the affected families are compatible with an X-linked inheritance, KFSD are found to be

Caution: Product has not been fully validated for medical applications. For research use only.

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clinically and genetically heterogeneous.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

SAT1 Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 191 amino acids (1-171 a.a.) and having a molecular mass of 22.1kDa. The SAT1 is purified by proprietary chromatographic techniques.

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