

## Product datasheet for RC203275

### SAT1 (NM\_002970) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SAT1 (NM\_002970) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** SAT1  
**Synonyms:** DC21; KFSD; KFSDX; SAT; SSAT; SSAT-1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC203275 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTAAATTCGTGATCCGCCAGCCACTGCCGCCACTGCAGTGACATACTGCCGCTGATCAAGGAGC  
 TGGCTAAATGAATACATGGAAGAACAAGTAATCTTAAGTAAAAAGATCTGCTAGAAGATGGTTTTGG  
 AGAGCACCCCTTTACCACTGCCTGGTTGCAGAAGTGCCGAAAGAGCACTGGACTCCGGAAGGACACAGC  
 ATTGTTGGTTTTGCCATGTACTATTTACCTATGACCCGTGGATTGGCAAGTTATTGTATCTTGAGGACT  
 TCTTCGTGATGAGTGATTATAGAGGCTTTGGCATAGGATCAGAAATCTGAAGAATCTAAGCCAGGTTGC  
 AATGAGGTGTCGCTGCAGCAGCATGCACCTCTTGGTAGCAGAATGGAATGAACCATCCATCAACTTCTAT  
 AAAAGAAGAGGTCTTCTGATCTGTCCAGTGAAGAGGGTTGGAGACTGTTCAAGATCGACAAGGAGTACT  
 TGCTAAAATGGCAACAGAGGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC203275 protein sequence  
 Red=Cloning site Green=Tags(s)

MAKFVIRPATAADCSDILRLIKELAKYEYMEEQVILTEKDILLEDGFGEHPFYHCLVAEVPKEHWTPEGHS  
 IVGFAMYFTYDPWIGKLLYLEDFVMSDYRGGFVIGSEILKNLSQVAMRCRCSSMHFLVAEWNEPSINFY  
 KRRGASDLSSEEGWRLFIDKEYLLKMATEE

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6051\\_a10.zip](https://cdn.origene.com/chromatograms/mk6051_a10.zip)



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_002970

ORF Size: 513 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM\\_002970.3](#)

RefSeq Size: 1085 bp

RefSeq ORF: 516 bp

Locus ID: 6303

UniProt ID: [P21673](#)

**Cytogenetics:** Xp22.11

**Domains:** Acetyltransf

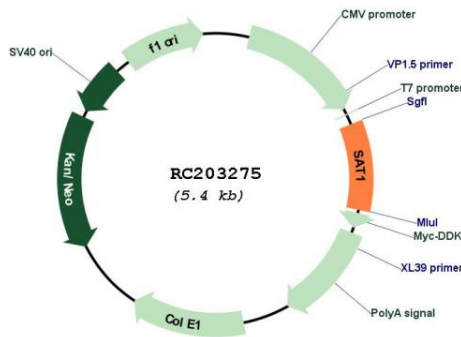
**Protein Families:** Druggable Genome

**Protein Pathways:** Arginine and proline metabolism, Metabolic pathways

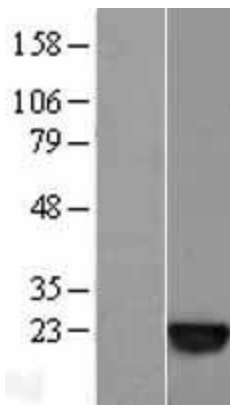
**MW:** 20 kDa

**Gene Summary:** The protein encoded by this gene belongs to the acetyltransferase family, and is a rate-limiting enzyme in the catabolic pathway of polyamine metabolism. It 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. Defects in this gene are associated with keratosis follicularis spinulosa decalvans (KFSD). Alternatively spliced transcripts have been found for this gene.[provided by RefSeq, Sep 2009]

**Product images:**



Circular map for RC203275



Western blot validation of overexpression lysate (Cat# [LY401040]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203275 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).