

## Product datasheet for RC217101

### ASMT (NM\_004043) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ASMT (NM_004043) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ASMT
Synonyms:	ASMTY; HIOMT; HIOMTY
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217101 representing NM_004043 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGATCCTCAGAGGACCAGGCCTATCGCCTCCTTAATGACTACGCCAACGGCTTCATGGTGTCCAGG  
TTCTCTTCGCGCCTGCGAGCTGGGCGTGTGGACCTTCGCGGAGGCCCCAGGGCCCTGGACGTGGC  
GGCAGTGGCTGCAGGTGTGAGGGCCAGCGCCCATGGGACAGAGCTCCTGCTGGACATCTGTGTGCCCTG  
AAGCTGCTGAAAGTGGAGACGAGGGGAGGAAAAGCTTTCTATCGAAACACAGAGCTGTCCAGCGACTACC  
TGACCACGGTCAGCCGACGTACAATGCAGCATGCTGAAGTACATGGGACGACCAGCTACCGGTGCTG  
GGCCACCTGGCAGACGCGTGAGAGAAGGAAGCAACAGTACCTGGAGACGTTTGGCGTCCCGCTGAA  
GAGCTTTTACGGCCATCTACAGGTCAGGGGCGAGCGGTACAGTTCATGCAAGCTCTGCAAGGAGTCT  
GGAGCGTCAACGGGAGAAGCGTGTGACCGCCTTTGACCTGTGAGTGTCCCACTTATGTGTGACCTTGG  
TGGGACATGGATAAAGCTGGAAACCATCTTCAGCAAATATCGCAAGGACAGAAAACCAAACACCGC  
GTGTTCTCACTCATAGGTGGGCTGGAGCTTGCTAAGGAATGCATGTCTGTACCCTGGATGTAAGA  
TCACCGTTTTTGACATCCAGAAGTGGTGTGGACGGCAAAGCAGCACTTCTCATTCCAGGAGGAAGAACA  
GATTGACTCCAGGAAGGGGATTTCTCAAAGACCCTCTCCGGAAGCTGATCTGTACATCCTGGCCAGG  
GTCCTCCATGACTGGGACAGCGAAAGTCTCACACCTGCTGGAGAGGATCTACCACACTTGAAGCCAG  
GTGGTGGCATTCTGGTAATTGAAAGCCTCTGGATGAAGACAGGCGAGGTCTCTGCTCAGCAGCTCTA  
CTCTCTGAACATGCTTGTGCAGACGGAAGGGCAGGAGAGGACCCCACTACCACATGCTCCTCTCT  
TCTGCTGGCTCAGAGACTTCCAGTTTAAAGAAAACAGGAGCCATTTATGATGCCATTTTAGCCAGGAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RC217101 representing NM\_004043  
Red=Cloning site Green=Tags(s)

MGSSSEQAYRLLNDYANGFMVSQVLFACELGVFDLLAEAPGLDVAAVAAGVRASAHGTELLLDICVSL  
 KLLKVETRGGKAFYRNTELSSDYLTTSPTSQCSMLKMYMGRTSYRCWGLADAVREGRNQYLETFGVPAE  
 ELFTAIYRSEGERLQFMQALQEVSVNGRSVLTAFDLSVFPMLMCDLGGTWIKLETIILSKLSQGQTKHR  
 VFSLIGGAGALAKECMSLYPGCKITVFDIPEVVWTAHQHFSFQEEEQIDFQEGDFKDPDLPDADLYILAR  
 VLHDWADGKCSHLLERIYHTCKPGGGILVIESLLDEDRRGPPLLTLQYSLNMLVQTEGQERTPTHYHMLLS  
 SAGFRDFQFKKTGAIYDAILARK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8017\\_g06.zip](https://cdn.origene.com/chromatograms/mk8017_g06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_004043

**ORF Size:** 1119 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\\_004043.2](#), [NP\\_004034.2](#)

**RefSeq Size:** 1370 bp

**RefSeq ORF:** 1122 bp

**Locus ID:** 438

**UniProt ID:** [P46597](#)

**Cytogenetics:** X;Y

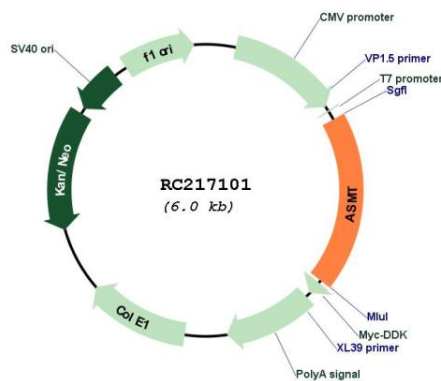
**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Tryptophan metabolism

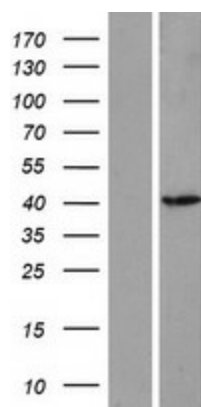
**MW:** 41.5 kDa

**Gene Summary:** This gene belongs to the methyltransferase superfamily, and is located in the pseudoautosomal region (PAR) at the end of the short arms of the X and Y chromosomes. The encoded enzyme catalyzes the final reaction in the synthesis of melatonin, and is abundant in the pineal gland. Alternatively spliced transcript variants have been noted for this gene. [provided by RefSeq, Jan 2010]

## Product images:



Circular map for RC217101



Western blot validation of overexpression lysate (Cat# [LY418254]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217101 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).