

## Product datasheet for **RG227601**

### **EHMT1/GLP (EHMT1) (NM\_001145527) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	EHMT1/GLP (EHMT1) (NM_001145527) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EHMT1
Synonyms:	EHMT1-IT1; Eu-HMTase1; EUHMTASE1; FP13812; GLP; GLP1; KLEFS1; KMT1D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG227601 representing NM\_001145527  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATG**CCCGCCCGCCGATGCCGAGGCAGTTC**CGGCGAGGGGGAGCCTCAGCAGGATTGCTGTGTGAAAACCG  
 AGCTGCTGGGAGAAGAGACACCTATGGCTGCCGATGAAGGCTCAGCAGAGAAACAGGCAGGAGAGGCCCA  
 CATGGCTGCGGACGGTGAGACCAATGGGTCTTGTGAAAACAGCGATGCCAGCAGTCATGCAAATGCTGCA  
 AAGCACACTCAGGACAGCGCAAGGGTCAACCCCAAGGATGGCACCAACACACTAACTCGGATAGCGGAAA  
 ATGGGGTTTCAGAAAGAGACTCAGAAGCGGCAAGCAAAACCACGTCCTGCGCAGACTTTGTGCAGAC  
 TTCTGTCA**T**CGGACGAACGGATACATCTTAAATAAGCCGGCCCTACAGGCACAGCCCTTGAGGACTACC  
 AGCACTCTGGCCTCTTCGCTGCCTGGCCATGCTGCAAAAACCTTCTCGAGGGGCTGGCAAAGGCAGGA  
 CTCCAAGCGCTTTCCCAAGACGCCAGCCGCCACCAGCCACCCTTGGGGAGGGGAGTGTGACACAGA  
 GGACAGGAAGCTCCCGGCCCTGGCGCCGACGTC**AAGGTCCACAGGGCACGAAGACCATGCCGAAGTCC**  
 GTCGTGGGCTGCATGCAGCCAGTAAAGATCCAGAGAAGTTCGAGAAGCTAGAGATCAT**AAGGAACCAA**  
 AAGAGGAGATCAACAAAAACATTTCTGACTTTGGACGACAGCAGCTTTTACCCCCCTTCCATCCCTTCA  
 TCAGTCGCTACCTCAGAACCAAGTGTACATGGCCACCACAAAATCACAGACAGCTTGCTTGCCCTTTTGT  
 TTAGCAGCTGCAGTATCTCGGAAGAAAAACGAAGAATGGGAACCTATAGCCTGGTTCTAAGAAAAAGA  
 CCAAAGTATTA**AAAACAGAGGACGGTGATTGAGATGTTT**AAGAGCATAACTCATTCCACTGTGGGTTCCAA  
 GGGGGAGAAGGACCTGGGCGCCAGCAGCCTGCACGTGAATGGGGAGAGCCTGGAGATGGACTCGGATGAG  
 GACGACTCAGAGGAGCTCGAGGAGGACGACGGCCATGGTGACAGCAGGGCGCCGCTTCCCAACAGAGG  
 ACAGCAGGACTTCCAAGGAGAGCATGT**CGGAGGCTGATCGCGCCAGAAGATGGACGGGGAGTCCGAGGA**  
 GGAGCAGGAGTCCGTGGACACCGGGGAGGAGGAGGAAGGCGGTGACGAGTCTGACCTGAGTTCGGAATCC  
 AGCATTAAAGAAAGAAATTTCTCAAGAGGAAAGGAAAGACCGACAGTCCCTGGATCAAGCCAGCCAGGAAAA  
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 CGCTGAGCAGACGGCACCAGGAGACAGCACAGGGTACATGGAAGTTTCTCTGGACTCCCTGGATCTCCGA  
 GTCAAAGGAATTTCTGTCTTCA**AAAGCAGAAGGGTTGGCCAACGGTCCAGATGTGCTGGAGACAGACGGCC**  
 TCCAGGAAGTGCCTCTCTGCAGCTGCCGGATGGA**AAACCCGAAGAGTCGAGAGATCACCACACTGGCCAA**  
 CAACCAGTGCATGGCTACAGAGAGCGTGGACCATGAATTGGGCCGGTGCACAGACAGCGTGGTCAAGTAT  
 GAGCTGATGCGCCCTCCAACAAGGCCCGCTCCTCGTGTGTGAAGACCACCGGGGCCGATGGTGA  
 AGCACCAGTGTCTCCTGGCTGTGGCTACTTCTGCACAGCGGGTAATTTTATGGAGTGTACGCCGAGAG  
 CAGCATCTCTACCGTTTCCACAAGACTGTGCCTCTCGAGTCAATAACGCCAGCTATTGTCCCACTGT  
 GGGGAGGAGAGCTCCAAGGCCAAAGAGGTGACGATAGCTAAAGCAGACACCACCTCGACCGTGACACCAG  
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 ACCACTCTCGGAGGACGACAAGCTGCAGGGTGCAGCCTCCACGTCGCCGAGGGCTTTGATCCAACGGGA  
 CCTGCTGGGCTTGGGAGGCCAACTCCCGCCTTCCAGGGACCAGGGAAGGAAACCTTGGAGAGCGCTC  
 TCATCGCCCTCGACTCGAAAAACCAAGAAGCTTCGCTTCCACCCAAGCAGCTGTACTTCTCCGCCAG  
 GCAAGGGGAGCTT**CAGAAGGTGCTCCTCATGCTGGTGGACGGAATTGACCCCAACTTCAAATGGAGCAC**  
 CAGAATAAGCGCTCTCCACTGCACCGCGGCAGAGGCTGGACACGTTGGACATCTGCCACATGCTGGTTC  
 AGTTCTGCAGGCTGGGAAGCCAAAGTTCGAGGGGCTGCCTTTGG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

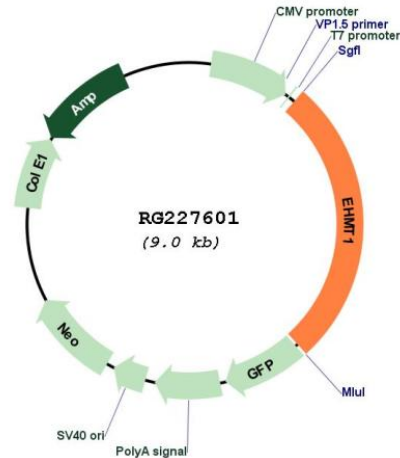
**Protein Sequence:** >RG227601 representing NM\_001145527  
Red=Cloning site Green=Tags(s)

MAAADAEAVPARGEPQQDCCVKTELLGEETPMAADEGSAEKQAGEAHMAADGETNGSCENS DASSHANAA  
KHTQDSARVNPQDGTNTL TRIAENGVSERDSEAAKQNHVTADDFVQTSVIGSNGYILNKPALQAQPLRTT  
STLASSLPGHAAKTLPGGAGKGRTPSAFPQTPAAPPATLGEGSADTEDRKL PAPGADV KVRARKTMPKS  
VVGLHAASKDPREVREARDHKEPKKEEINKNISDFGRQQLPPFP SLHQSLPQNQCYMATTKSQTACL PFV  
LAAAVSRKKRRMGTYSLVPKKTKVLKQRTVIEMFKSITHSTVGSKGEKDLGASSLHVNGESLEMD SDE  
DDSEEELEDDGHGAEQAAAFPTEDSRTSKE SMSEADRAQKMDGESEEEQESVDTGEEEEGGDES DL SSES  
SIKKKFLKRKGKTDSPWIKPARKRRRRSRKKPSGALGSESYKSSAGSAEQTAPGDSTGYMEVSLDSL DLR  
VKGILSSQAEGLANGPDVLET DGLQEVLPCSCRMETPKSREITTLANNQCMATESVDHELGRCTDSVVKY  
ELMRPSNKAPLLVL CEDHRGRMVKHQCCPGCYFCTAGNFMECQPESSISHRFHKDCASRVNNASYCPHC  
GEESSKAKEVTIAKADTTSTVTPVPGQEKGSAL EGRADTTTGSAA GPPLSEDDKLQGAASHVPEGF DPTG  
PAGLGRPTPGLSQGPGKETLESALIALDSEKPKLRFHPKQLYFSARQGELQKVLMLVDGIDPNFKMEH  
QNKRSPLHAAA EAGHV DICHMLVQFCRLGSPRSRGCLW

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



**Plasmid Map:**


**ACCN:** NM\_001145527

**ORF Size:** 2424 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001145527.1](#), [NP\\_001138999.1](#)

RefSeq Size: 2724 bp

RefSeq ORF: 2427 bp

Locus ID: 79813

UniProt ID: [Q9H9B1](#)

Cytogenetics: 9q34.3

Protein Families: Druggable Genome

Protein Pathways: Lysine degradation

**Gene Summary:** The protein encoded by this gene is a histone methyltransferase that methylates the lysine-9 position of histone H3. This action marks the genomic region packaged with these methylated histones for transcriptional repression. This protein may be involved in the silencing of MYC- and E2F-responsive genes and therefore could play a role in the G0/G1 cell cycle transition. Defects in this gene are a cause of chromosome 9q subtelomeric deletion syndrome (9q-syndrome, also known as Kleefstra syndrome). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2017]