

## Product datasheet for **MG211578**

### Hel308 (BC082601) Mouse Tagged ORF Clone

#### Product data:

|                           |                                                                            |
|---------------------------|----------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                        |
| Product Name:             | Hel308 (BC082601) Mouse Tagged ORF Clone                                   |
| Tag:                      | TurboGFP                                                                   |
| Symbol:                   | Hel308                                                                     |
| Synonyms:                 | AU021725; D430018E21Rik; Hel308                                            |
| Mammalian Cell Selection: | Neomycin                                                                   |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                                    |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                     |
| ORF Nucleotide Sequence:  | >MG211578 representing BC082601<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGGACGGCTGTCCCGCATCCGCCGGCGGGTGTCTGTCCGCAAAGGAACCGCGCAACCTGGAGA  
ACCTCCGTGCCTCCCGACCCCGGCCGAGCTCCAGCCTGCCGAGGACACGGAGGACGAAGCTGCAGCCGG  
GAGCCGCCCGGAAAACCGGGAGCCCGGAGCAGCCAGGAAAATGACAGCGAAGAGGACATGTTTGGT  
GACTATGACAGCTTTACAGAAAGTTCCTTCTTAGCTCACGTTGATGACCTGGAACAGAGATATATGCAAC  
TGCTGAATGTGGGACCGTGATGCAGACTCTGGCACAAAGACCTTTGTTGAGCAGGCCTCAAAAACAA  
CCTCAGAGTTACTACTGTAATCAACCTCACTGACCCGGAAGTAGTGAGCACGGCCAGAAGCAGAGTCAC  
CTAGATGTCCCTGCTGAACCAGAACCTGGAAGCGATCTTTCGTTTGATGTGCCTTCTTCAAAATTTAT  
ACTTTGAAAATCCGCAGAACTCACCAGAAGCTTTGGGCGATCCGTGCACTAAGAAGACAAATGGGGACCC  
ACAGAAGTCATCATGAAGAGTTGGTCTCCAGCCACACAGAGCAACCCGAGCCAAATATGACTTCTCT  
AACGTCAGAGCTGCTTCAGAGTCAAGCAGGAGAAAAAGTCTGAAAGACCATCTGAAAGTACCATGGCTG  
GGAATGCCAGGGCCAGACCCAGCATTTCAGGAGTAACACCTCAGAGAGGCGCTCCTGTCTGAGGA  
GATCAGCGTCGCCAAGAAAGCCATTGAGTCACCGTCAGATGATCTTGGTCCTTTTATTCGCTACCCAGC  
AAAGTGAGAGATCTTTACGTTCAATTGAAAGGAATCAAAAAGCTATATGACTGGCAACATACTTGCTTAA  
CGCTAAGATCTGTGCAAGAAAGAAAAATTTAATATATTCTTGCCAACGAGTGCGGGGAAACCCCTTGT  
GGCTGAGATCTTAATGCTGCAAGAGCTGCTCTGCCGACAGAAAGATGTCTTAATGATCCTTCGATGTG  
GCCATTGTCCAAGAGAAGATTTCCAGTTTATCGAGTTTGGTATAGAAGTGGTTTCTTTGTTGAAGAAT  
ATGCTGGAAGCAAAGGAAGATTTCTCCAATTAAGGAGGGAGAGAAATCACTGTATATCGCCACTAT  
CGAGAAAGCGCATAGCCTGGTGAATGCCTTGATCGAAACAGCAGGCTCAGCACTCTGGGTCTGGTTGTC  
GTCGATGAGTTGCACATGATTGGTGAAGGGAGCCGTGGCGCCATACTGGAGATGACCCTGGCAAAAGTCC  
TCTACACAGCAAAACAACTCAGATTATCGGCATGAGTGCAACATTGAACAACGTAGAAGACCTGCAGGC  
GTTCTTAAAGCCGAGTACTACACAGTCAGTTCAGACCAGTGAATTAAGAATTCTGAAAGTAAAT



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GACACAATCTATGAGGTAGACAGCCAGGCTGCGGACGGCATGACCTTTTCACGGCTCCTGAGTTATAAGT  
 ACTCTGAGGCCCTGAAGAAGATGGATCCCGACCGCTTGGTAGCTGGTGACAGAAGTTATTCCTAACTA  
 CTCCTGCCTGGTGTGTTTGTCCCAGTAAGAAGAACTGTGAAATGTAGCAGAAATGTTGTGCAAGTTTTTA  
 AGCAAGGACTATCTAAACCACAGAGAGAAAAAATGCGAAGTGATTAAAGTTTGAGGAATATCGGCA  
 ATGGTAAAGTGTGCTCTGCTGAAGCGCACCGTCCCTTTGCGCATCGCCTATCACCACAGCGGTTAAC  
 TAGCGAAGAGCGGAAGCTTCTGGAAGAGGCTTACTCCACAGGCGTGCTGTCTCTTGACCTGCACGTCC  
 ACCCTGGCAGCAGGGGTCAATCTGCCTGCACGGAGAGTCATCTTACGATCTCCCTATGTGGCTAACACGT  
 TCTTAAAGAGGAATCAGTACAAGCAGATGGTTGGCAGGGCCGGCCGCGCTGGGATAGACACTGCCGGGA  
 GAGCATCCTTCTGCTGCAAGAGAAGGACAAGCAGCAGGTCCTGGAATCATAAGCGGACCCCTGGAGACC  
 TGCTGCAGCCATCTTGTGAGGAATTACCAAGGGGATCCAGGCTTTGTTTCTCTCTTAAATGGTCTGA  
 AGATCGCAGCAAGTCTTGGTGACATATCAGTTTATGAGTGGTACATTTTTTGGTGTTACAGAAAAGAT  
 TTTATTGAAAGAAAAAGTCTCTGGGAAATAACTGTTGACGCTCTTGAACACCTGACAGAGAAAGGACTT  
 CTACAGAAAGACAGCTGTGGCACAATGAGGGTTAGAGTGTCACTTCCGGATTACGAACTGGGCAAG  
 CTTCTTTTAAGGGAGCCATTGATTTGGCCTATTGTGACACTCTGTACAGAGACTTGAAGAAAGTCTGGA  
 AGGACTTGTAAGGAGAGCCTTCTCATCTGATCTACCTAACACGCCCTATGACCTGGCTGCTCAGTCT  
 GAGCCTGACTGGATGGTGTACTTCAAGCAGTTTGGTCAACTCAGCCCAACAGAGCAGAATGTAGCCGCTC  
 TTCTCGGAGTCTCCGAAAGCTTTATCGGGAAGAAAGCAGCAGGACAAGCCGTGAGAAAGAGGTGGACAA  
 GAACGTTGTCAACAGACTCTACCTGTGCTTTGTGCTTTATTCTTTGCTGAAAGAGACCAATGTTTGAGT  
 GTGTCTGAGAAGTTTAACTGCCCGAGGATACATACAGAACCTGCTTATGGGAGCTGCCTCCTTCTCTT  
 CCTGCGTGTACATTTCTGTGAGGAGCTGGAGGAATTTTGGGTTTACAAAGCCCTTTTGGTGAACTCAC  
 CAAGAAGCTGACGTACTGCGTGAAGCGGAGCTAATCCCTCTCATGGAAGTGACCGGGTCTTAGAGGT  
 CGAGCAAAACAGCTATATAACGCAGGTTACAGGAGCATCATGCACTTAGCCAATGCCAACCCAGAAGTGT  
 TGGTGAAGACAATTGATCATCTGTCCAGACGGCAAGCCAGGCAGATTGTTTCTCAGCCAAGATGCTGTT  
 GCATGAGAAGGCGGAGGCACTGCAAGGAGAAGCAGAAGAATTACTGAGATTGCCTGCAGCACTCCCTGGG  
 CTTGGGGTCCCAGCTCTGAAAGGCGAGGAAGCCATGCTGGGGACGTAATCTGAGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG211578 representing BC082601

Red=Cloning site Green=Tags(s)

MEDGCPRIIRRRVSVRKRNRGNLENLRASPTPAELQPAEDTEDEAAAGSRRRKTSPEHAQENDSEEDMFG  
 DYDSFTESSFLAHVDDLEQRYMQLPECGDRDADSGTKDLCSAGLKNLRVTTVINLTDPETSEHGQKQSH  
 LDVPAEPEPGSDLSFDVPSSQILYFENPQNSPEALGDPCTKKTNQDPQKSSHEELVSSHTEQPEPNDFS  
 NVRAASESSRRKSLKDLKSTMAGNARAQTPAFPRSKHLREALSEEISVAKKAIESPDDLGPFYSLPS  
 KVRDLVYQLKGIKKLYDQHTCLTLRSVQERKNLIYSLPTSGGKTLVAEILMLQELLCRQKDVLMILPYV  
 AIVQEKISSLSFGIELGFFVEEYAGSKGRFPPIKRREKKSLEYIATIEKAHSLVNALIETSRSLTLGLVV  
 VDELHMIEGESRGAILMTLAKVLYTSKTTQIIGMSATLNNVEDLQAFLEAEYYSQFRPVELKEFLKVN  
 DTIYEVDQAADGMTFSRLLSYKYSEALKKMDPDLVALVTEVIPNYSCLVFCPSKKNENVAEMLCKFL  
 SKDYLNHREKEKECEVIKSLRNIGNKVCPLKRTVPFGIAYHHSGLTSEERKLLLEEAYSTGVLCLLTCT  
 TLAAGVNLPAARRVILRSPYVANTFLKRNQYKQMVGRAGRAGIDTAGESILLLQEKDKQVLELISGPLET  
 CSHLVEEFTKGIQALFLSLIGLKIAASLGDYQFMSTGFFGVQKILLKEKSLWEITVDALEHLTEKGL  
 LQKDSGCDNEGLECHFRITKLQASFKGAIDLAYCDTLYRDLKKGLEGLVLESLLHLIYLTTPYDLAAQS  
 EPDWMVYFKQFGQLSPTEQNVAALLGVSESF IGKKAAGQAVRKKVDKNVNRLLYLSFVLYSLLKETNVWS  
 VSEKFNLPGRYIQNLLMGAASFSSCVLHFCEELEEFWVYKALLVELTKKLTVCVKAELIPLMEVTGVLEG  
 RAKQLYNAGYRSIMHLANANPEVLVKTIDHLRRQARQIVSSAKMLLHEKAEALQGEAEELLRLPADLPG  
 LGGPSSERAGSHAGDVTLS

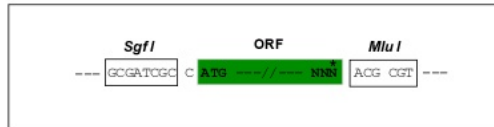
TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

## Cloning Scheme:

Cloning sites used for ORF Shutting:

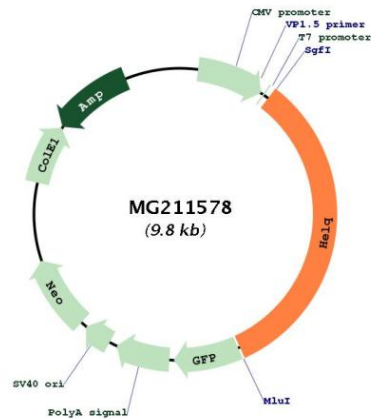


EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI  
 CTATAGGGCGGCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT  
 HindIII NheI RsrII MluI NotI XhoI GFP Tag  
 CAAGCTTAAGCTAGCTAGCGGACG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- ---  
 T R T R P L E M E S D - - -  
 PmeI FseI  
 --- GAA GAA AGA GTT TAA ACGGCCGCCCGGAGCT  
 - - E E R V Stop

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACCN:                  | BC082601                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ORF Size:              | 3209 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. <a href="#">More info</a>                                                                      |
| 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: | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol> |
| RefSeq:                | <a href="#">BC082601</a> , <a href="#">AAH82601</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| RefSeq Size:           | 3672 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RefSeq ORF:            | 3209 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Locus ID:              | 191578                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|               |                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cytogenetics: | 5 E4                                                                                                                                                                                                                                                                                                                                                                                         |
| Gene Summary: | Single-stranded DNA-dependent ATPase and 5' to 3' DNA helicase. Involved in the repair of DNA cross-links and double-strand break (DSB) resistance. Participates in FANCD2-mediated repair. Forms a complex with POLN polymerase that participates in homologous recombination (HR) repair and is essential for cellular protection against DNA cross-links. [UniProtKB/Swiss-Prot Function] |

## Product images:



Circular map for MG211578