

## Product datasheet for **RG212699**

### DNAH1 (NM\_015512) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DNAH1 (NM_015512) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DNAH1
Synonyms:	CILD37; DNAHC1; HDHC7; HL-11; HL11; HSRF-1; SPGF18; XLHSRF-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG212699 representing NM_015512 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCAGCCTAACAGTAAAGGCTATAGCCTGGGAAGGACCCCTCAGGGCCAGAGTGCAGCAGTGCTC  
CTGCAGTCCAAGTGGGGACCCACAGGGGCTAGAGTATAACCCGGGAAGATTCTCCAGGATCAGACTA  
TGGGTTGGGAAATCCTCCAGCCCTTGACCCCAAGCTCCACATTTACCCCTGCCCGGCCCCACCACA  
CTCTCAGACTTGGGCAGCCACGGAAGTACCCCTGACAGGCACTGATAAGAAGTACCCGCTGATGAAGC  
AGCGTGGGTTCTACTCCGACATCCTCAGCCCTGGAACCTTAGATCAACTGGGGAGGTATGTCGTGGCCC  
CCGAATGAGCCAGAACCTCCTGCGGCAGGCTGACCTTGACAAGTTCACCCCAAGAGTCGGAAGCTTTGAG  
GTTCTGAAGACTTCCAGGAGCGCATGGAGCAGCAGTGCATCGGGTCCACCACCCGGCTGCTCGCCAGA  
CTGACTTCCCCTGCAGGCCCTACGAGCCCAAGATGCAGGTGCCTTTCCAGGTGCTGCCAGGCCAGCATCC  
TCGCAAGATTGAGATCGAGAGGAGGAAACAGCAGTACCTGAGCCTGGACATTGAGCAGTTGCTGTTGAGC  
CAGGGCATCGACTCCAACAAGCTCATGCCAGGCACCTGGACCACCAGCACCCCAACCATCGAACAGG  
GCCATGACCCAATCTTCCCCTACTCTCCACTGAAGTATTTGACAATGAGGACTTTGACTGCCGGAC  
TCCCAGAGAGTGGATCAACATGGGCTTGGAGCCAGGGTCTCTGGACAGGAAACCTGTCCCGGAAAAGCC  
CTCTTGGCCACTGATGACTTCTGGGGCATGAGGACCCCAAGTCAAGTCAAGTACAATGGTGCG  
AGGTCCGGCTCCTGGACTACGACGAGGAGAAGAAGCTATACCTGGTACACAAGACAGACGAGAAAAGGCT  
GGTGCGAGATGAGATGGGAGGCCCATCCTGAATGCAGGGGTCACTCAAGGAAGGCCACCCCTTCAG  
GTCTGTGACTGAGTGGTGCACGGATCCAGCTTCTCTTCTGCGCTGAGGACCCCTGCATGTTGCGACAAC  
GTGTGGTCCAGGCCAACGCCCTGCGCAAGAACACGGAAGCACTGCTGCTTACAACCTGTATGTGGACTG  
CATGCCCTCTGACGGCCAGCATGTCATCAGTGAACAGAGCCTGAGCAAGATCAAGCAGTGGGCCCTGAGC  
ACGCTCGGATGCGCAAAGGCCCTCGGTTCTAGAGCACCTCAGCAGTCTTGCCAGAGAAGTGGAGCTGG  
ACTATGAGCGCAGCATGAACAAGATCACTTTGACCACGTTGTCTTCCAAGCCCGAGACCTTCTCCTA  
CGTCACCTCCCAAGAAGGAGGAGGAGCAGGTGCCTGAGCGAGGGCTGGTGAAGTGTCCCAAGTACCAC



[View online »](#)

TTCTGGGAGCAGAAGGAGGACTTCACTTTCGTGTCCCTGCTCACACGGCCAGAGGTCATCACGGCCCTCA  
 GCAAGGTGAGGGCCGAGTGCAACAAGGTGACCGCCATGTCCCTGTTCCACTCGAGCCTCTCCAAGTACAG  
 CCACCTGGAGGAATTTGAGCAGATCCAGTCACAGACCTTCTCCCAGGTGCAGATGTTCTCAAGGACAGC  
 TGGATCAGCTCGCTAAAGGTGGCCATGCGCAGCAGCCTGCGCGACATGAGCAAGGGCTGGTACAACCTCT  
 ACGAGACCAACTGGGAGGTGTACCTCATGTCCAAGCTGCGCAAGCTGATGGAGCTGGTGAAGTACATGCT  
 GCAGGACACACTGCGCTTCTGGTGCAGGACTCACTTCCAGCTTCTCACAGTTCATCAGCGACACCTGT  
 TGCAGCTGCTCAACTGCACCGATGCATGGTCTGGGGTGACGACTTAATTAACAGCCCCACAGGCCCC  
 GGAAGAATCCCCTGTTTCATCATGGACCTGGTCTGGACAGCTCTGGGGTGCACTATAGCACCCCACTGGA  
 GCAGTTTGAGGCATCTCTGCTGAACCTCTTCGACAAGGGCATCCTGGCCACCCATGCCGTGCCCCAGCTG  
 GAGAAGCTGGTGTGGAGGACATCTTCATCAGCGGTGACCCCTGCTGGAGTCCGTGGGCCCTTCATGAGC  
 CACTGGTGGAGAGCTACGGGCCACCATGGCAGTGCCGTGTCCAAGGCCATGATCCCACTGCAGGCCTA  
 CGCAAGGAGTACCGAAAGTACCTGGAGCTGAACAACAATGACATTGCCTCTTTCTCAAAACCTACCAG  
 ACGCAGGGCCTGTGGCCAGGAGGTGCGGGAGGTAGTGCTACCCACCTGCGGGAGAAGGAGATCTGG  
 ACAGCTCGCTGCCAGCAGCATCATATTGGGCCCTTCTACATCAACACCGACAATGTCAAGCAGAGCCT  
 GTCCAAGAAACGCAAGGCCCTGGCCACTCCGTGCTGGACATCCTTGCCAAGAACCTGCATAAGGAGGTG  
 GATAGCATCTGCGAGGAGTTCGCGAGCATCAGCCGCAAGATCTATGAGAAGCCCAACAGCATTGAGGAGC  
 TGCTGAGCTGCGAGAGTGGATGAAGGGCATCCCGGAGAGGCTGGTGGGCCCTGGAGGAGCGGATTGTGAA  
 GGTGATGGATGACTACCAGGTGATGGATGAATTCCTCTACAACCTCAGCTCAGATGACTTCAATGACAAA  
 TGGATTGCCAGCAACTGGCCTTCAAGATCCTTGGGCAGATAGAGCTGGTGCAGCAGCAGCATGTGGAGG  
 ATGAGGAGAAGTCCGCAAAATCCAGATCATGGATCAGAACAACCTTCAAGAGAAGCTGGAAGGGCTGCA  
 GCTGGTAGTAGCTGGCTTCTCCATCCATGTGGAGATTTACGTGCACACGAGATCGCCAACGAGGTGCGG  
 CGTGTCAAGAAGCAGCTGAAGGACTGCCAGCAGCTGGCCATGCTCTACAACAACCGCAGCGCATCTTCA  
 GCTTGCCCATACCAATTATGACAAGCTTCCAGGATGGTGAAGGAGTTCCAACCTACCTGGACCTTTG  
 GACCACAGCGTCTGACTGGCTGCGCTGGTCCGAGAGCTGGATGAATGACCCCTCTCTGCCTCATGAGTCT  
 GAGCAGCTGGAGAAGAAGCTGGTTGAAGCCTTCAAGACCATGCACAAGTGCCTGAAGCAGTTTAAGGACA  
 TGCCAGCCTGCCAGGAAGTGGCCTTGGACATCCGGGCCCGCATCGAGGAGTTCAAACCATACATCCCACT  
 GATCCAGGGGCTGCGCAACCCTGGCATGCGGATCCGGCACTGGGAGACTGTCCAACCATGATCAACATC  
 AATGTCAGGCCCAAGGCCAACCTGACCTTGTCTGCTGCTGGAGATGAACCTGCAGGACCATATCGAGA  
 GCATCAGCAAGGTGGCTGAGGTGGCTGGCAAGGAGTACGCCATCGAGCAGGCACTGGACAAGATGGAGAA  
 GGAGTGGTCGACCATCCTGTTCAATGTACTGCCCTACAAGGCGACAGACACCTACATCCTGAAGAGCCCG  
 GACGAGGCCTCACAGCTGCTGGACGACCACATCGTCATGACCCAGAATATGTCATTTTACCCCTACAAGA  
 AGCCCTTTGAGCAGCGCATCAACTCCTGGGAGAACAACCTGAAGCTGACCCAGGAGGTTCTGGAGGAGTG  
 GCTGAAGTGTGAGCGGTCTGGCTTACCTGGAGCCCATCTTTAGCTCTGAGGACATCAACCAGCAGCTG  
 CCTGTGGAGAGCAAGCGCTACCAGACCATGGAGCGGATCTGGAAGAAGATCATGAAGAATGCCTACGAGA  
 ACCGGGAGGTGATCAATGTGTGTTCCGACCTGAGAATGCTGGACAGCCTGCGGGACTGCAACAAGATTCT  
 GGACCTGGTGCAGAAGGGCCTCAGCGAGTATCTGGAGACCAAGAGGAGCGCCTTCCCCAGATTCTACTTC  
 CTGTGAGATGATGAACTACTAGAGATCTTGTGCGAGACAAAGGACCCACGGCCGTGCAGCCACACCTGC  
 GCAAGTGTTCGAGAACATCGCTCGCTGCTATTCAGGAGGACCTGGAGATCACGCACATGTACTCAGC  
 CGAGGGGAGGAGGTACAGTTGTGCTTCTCCATCTACCCCTCAGCAACGTGGAGGACTGGCTGCGGGAG  
 GTGGAGCGCAGCATGAAGGCCAGTGTGCACGACATCATTGAGAAGGCCATCAGGGCCTACCCACGATGC  
 CCAGGACCCAGTGGGTTCTGAACTGGCCTGGCCAGGTGACCATCGCTGGGTGCCAGACCTACTGGACCAT  
 GGAGGTGGCAGAGGCTCTGGAGGCCGCAACCTCAGAAGCCAACCTGTTCCCCAGCTCTGCCAGCAGCTC  
 AGTGATCTGGTGGCCCTTGTGCGGGGAAGCTGTCCCGCATGCAGCGGGCAGTGTGTCAGCGCTAATCG  
 TCATTGAGGTCCATGCCAAGGACGTGGTGGAGCAAGCTAATCCAGGAGAAGCTGGTGGAGGATGACTT  
 CCAGTGGATCTCACAGCTGAGGTACTACTGGACAAATAATGACCTGTATATCCGTGCTGTGAATGCTGAG  
 TTCATCTATGGCTATGAGTACCTGGCAACAGTGGGAGGCTGGTGTGATCACGCCCTCACCGACAGGTGCT  
 ACCTGACACTGACCGGAGCTCTGCACCTCAAGTTTGGGGTGCCCAAGCTGGCCAGCTGGCCACAGGCAA  
 AACTGAGACCACCAAGACCTGGGTAAGGCCTTGCCATACAGACCGTTGTGTTCAACTGCTCTGACCAG  
 CTCGACTTCATGGCCATGGGCAAGTTCTTCAAGGGCCTGGCCAGTGTGGGGCCTGGGCCTGCTTCGACG  
 AGTTCAATCGCATCGACATCGAGGTGCTGTCTGTGGTGGCGCAGCAGATCACCACCATCCAGAAGGGCGA  
 GCAGCAGCGGGTGAACGCTTCAATGTTTGGGGTGTGGAGATCCCACTGGTGCCATCCTGCGCAGTGTTC  
 ATCACCATGAACCCGGGCTACGCTGGCCGACGGAGCTGCCTGACAATCTGAAGGCGCTCTTCGACCCG

TGGCCATGATGGTTCAGATTACGCCATGATCACTGAGATCTCCCTCTATTCTTTGGCTTTAATGAGGC  
 CAGTGTGCTGGCTAAGAAGATCACAAACCACCTCAAGCTGTCTTCTGAGCAGCTCAGCTCCCAGGATCAC  
 TATGACTTCGGGATGAGAGCCGTGAAAACCTGTGATCTCGGCTGTGGAACTCAAGCGAGAAAACCCCA  
 GCATGAATGAGGAGCTGATCTGCCTCCGGGCCATCCGTGATGTGAACGTGCCAAGTTCTGCAGGAGGA  
 CCTCAAGCTCTTCTCTGGCATCGTGTCCGACCTGTTTCCACCATCAAGGAGGAGGACACGGACTACGGC  
 ATCCTGGATGAGGCCATCCGCGAGGCCCTGCAGGAACAGCAACCTCAAGGATGTGGAGGGCTTCTGACAA  
 AGTGCATCCAGCTCTACGAGACCAGGTGGTACGACACGGCCTCATGCTGTCGGGCCACAGGCTCCGG  
 CAAGAGTACTTGTACAGAGTCCCTGGCAGCTGCCATGACGTCACTGAAAGGGCAGCCATCCATCAGTGGT  
 GGCATGTACGAGGCTGTCAACTACTACGTGCTCAACCCCAAGTCCATCACGATGGGCCAGCTGTACGGGG  
 AGTTTGACCTCCTCACCCATGAGTGGACAGACGGGATATTCTCCTCGTTCATCCGGGCGGGGCCATCAC  
 CTCGACACCAACAAGAAGTGGTACATGTTGATGGGCCGGTGGATGCCATCTGGATTGAGAATGAAC  
 ACGGTGCTGGATGACAACAAGAAGCTGTGCCTCAGCTCTGGGAGATCATCAAGCTCACAGAGGCAATGA  
 CCATGATGTTGAGGTGCAAGACCTGGCGGTGGCTTACCAGCTACAGTCTCCGCTGTGGCATGGTGTA  
 CCTGGAGCCCAGCATCCTGGGGCTCATGCCCTTACGAGTGTGGCTGAGGAAGCTGCCTCCCTTGCTG  
 AAGCCCTATGAGGAGCATTTCAGGCCCTTTTGTGAGCTTCTGGAGGAATCCATCTCCTTCGTTCCGGT  
 CCTCAGTGAAGGAGGTGATCGCCTCAACCAACTGCAACCTGACCATGAGCCTCCTCAAGCTGCTGGAAGT  
 CTCTTCAAGCCCTTTCTGCCTAGAGAGGGCTCAAGAAAATACCCTCTGAAAAGCTGAGTCGCATCGTA  
 GAGTTGATCGAGCCCTGGTTCATCTTCTCCCTGATCTGGAGCGTGGGTGCCACTGGGGACAGCAGTGGCC  
 GCACCAGTTTCAGCCACTGGCTAAGGCTCAAGATGGAGAACGAACAGCTGACTCTGCTTTTCCAGAAGA  
 GGGGCTGGTGTTCGATTACAGGCTGGAGGACGCGGGCATCAGTGGCACCACGACAGTGAAGGATGAAGAG  
 GAGGAATAACAAGCAGTTGCCTGGGTGAAGTGGATGGACTCCTCAGCTCCATTACCATGGTACCAGACA  
 CCAACTACTGCAACATCATTGTGCCACCATGGACACCGTGCAGATGTCCATTTACTGGACATGCTGCT  
 CACCAACAAGAAGCCCGTGTGTCATTTGGCCAACAGGCACGGGGAAGACGCTCACCATCTCTGACAAG  
 CTCTCAAGAACCTGGCAGTGGATTACATCAGCCACTTCTCCTCACCTTCTCAGCCCGCTCAGCAACCC  
 AGACCCAGGACTTCATTGACAGCAAGCTGGACAAGAGGCGGAAGGGTGTGTTTGGACCACCTCTGGGGCG  
 CAACTTTATCTTCTCATCGATGACCTGAACATGCCGGCCCTGGAGACCTACGGTGCACAGCCACCCATC  
 GAGCTGTTGCGCCAGTGGATGGACCACGGCGGCTGGTACGACCGCAAGATCATTGGTGCCTTCAAGAACC  
 TAGTGGACATCAACTTTGTCTGTGCCATGGGCCCCCGGGTGGAGGCAGGAACACCGTCAACCCGCGGCT  
 GATGCGTCACTTCAACTACCTGTCTTTCGCTGAGATGGACGAGGTGAGCAAGAACGCATCTTCTCCACC  
 ATCCTGGGCAACTGGTTGGATGGACTCCTTGGAGAAAAAGCTACCGGGAGCGTGTGCTGGGGCCCCC  
 ACATTGCCCACTTACGGAGCCCTTGTGGAAGCCACCATCATGGTGTATGCAACCATCACCTCCAGCT  
 GCTGCCCACTCCAGCAAGTCCCACTACACCTTCAACCTGAGGGACCTCTCAAGGTCTTCAAGGCATG  
 CTATGGCTGACCCGGCCAAGGTGAGGACCAAGTGCAGCTGCTGCGACTGTGGTATCACGAGAAGTGC  
 GCGTGTCCGGGACCGACTGGTGAATGAGGAGGACCGCAGCTGGTTCGACCAGCTCCTCAAGCGTGCAT  
 GGAGCAGTGGGAGGTGACCTTCAACAAGGTCTGCCCTTCCAGCCATTCTTTACGGGGACTTATGTCA  
 CCAGGCTCCGATGTCAAGTCTACGAGCTCATCACCAGTGAAGTGAAGTATGATGCAGGTGATAGAGGAGT  
 ACATAGAGGACTACAACCAGATCAACACGGCCAAGCTGAAGTGGTCTCTTATGGACGCCATGAGCCA  
 CATCTGTGATCAGCCGACCCCTACGCCAGGCGCTGGGCAATGCACTCCTGCTGGGCGTGGTGGCAGC  
 GGCCGAGCTCCCTCACAAGGCTCGCCTGCACATGGCCGAGTACGAGTGTCTCCAGATTGAATATCCA  
 AGAACTACGGCATGTCCGAGTGGCGAGATGATGTGAAGAAGTCTGCTCAAGGCGGCCTACAGAACCT  
 ACCCATACCTTCTCTCAGACACCCAGATCAAGAACGAATCCTTCTGGAAGATATCAACAACGTC  
 CTAAACTCTGGTACATTCCAATCTGTATACTGCGGACGAGCAGGACCAGATCGTCAGCACCATGCGGC  
 CCTATATCCAGGAGCAGGGCCTACAGCCACCAAGGCCAACCTCATGGCTGTTACACAGGGCGTGTGCG  
 CAGCAACATCCACATGGTGTGTGATGAGCCCCATCGGAGAGGTCTTCCGAGCTCGTCTGAGGCAGTTT  
 CCCTCCCTGGTCAACTGCTGTACCATCGACTGGTTTACGAGTGGCCGGCAGAAGCCCTGAAGTCTGTGG  
 CCACCGTGTCTCAATGAGATCCAGAACTGGAATCCTCCAGGAAGAAATCCAAGGACTGATCCAGGT  
 CTGTGTGTACATCCACCAGTCGGTGTCCAAGAAGTGCATCGAGTACCTGGCAGAGCTGACCCGCCACAAC  
 TATGTGACCCCCAAGAGTACTTGGAGTGTCTCATATTTTCTCCATCCTCATCGGGCAGAAGAACTGG  
 AGCTGAAAAGTGCCAAGAACCAGTGAAGAGCGGCCTCGACAAGCTGCTGCGCACTTCTGAGGATGTAGC  
 CAAGATGCAGGAGGACCTGGAGAGTATGCACCCCTGCTGGAGGAGGCTGCCAAGGACACCATGCTCACC  
 ATGGAGCAGATCAAGGTGGATACGGCCATCGCCGAGGAGACCCGGAATTCAGTGCAGACAGAGGAGATCA  
 AAGCCAATGAGAAGGCCAAGAAGGCACAAGCTATTGCTGACGATGCCAGAAGGACCTGGACGAGGCGTT

GCCAGCCCTGGATGCGGCTCTGGCCAGCCTGCGCAACCTCAACAAGAACGATGTGACCGAGGTACGTGCC  
 ATGCAGCGGCCACCCCGGGTGTGAAACTGGTCATAGAAGCTGTGTGCATTATGAAAAGCATCAAGCCCA  
 AGAAGGTGCCTGGAGAAAAGCCAGGCACCAAGTGGATGACTACTGGGAGCCTGGCAAGGGGCTGCTGCA  
 GGACCCGGGCCACTTCTTGAGAGCCTCTTCAAGTTTGACAAGGACAACATTGGGGATGTGGTGATCAAA  
 GCCATCCAGCCGTACATCGATAATGAAGAGTTCAGCCAGCCACCATTGCCAAGTGTCCAAGGCTTGCA  
 CCTCCATCTGCCAGTGGGTGCGGCCATGCACAAGTACCACTTTGTGGCAAGGCCGTGGAGCCAAAGCC  
 GCAAGCCCTGCTGGAGGCCAGGATGACCTGGGGGTGACACAGAGGATCCTGGATGAGGCAAAACAGCGC  
 CTTCTGAGGTGGAGGACGGCATCGCCACAATGCAGGCTAAGTACCGGAATGCATTACCAAGAAGGAGG  
 AGCTGGAGCTGAAGTGTGAGCAGTGTGAGCAGCGGCTGGGCCGAGCTGGCAAGGTGCGCACCCCTCTCT  
 GCAAGGCCTGCAAGCGGGCCCGGCCAGACAGGGGCCAGAAAGGACCAGGGCGCCGGTGGGTCTGGGGT  
 GGCTGTCCACACCCCTCCCTGGCAACCAGGTGCCACAGTGGGTAGGGCCAGCCCAGGCCCTAGCCC  
 AGCCTCCAGAGCCACCCACGGGGTGCCTCCAGCTCATCAACGGGCTGTCGGATGAGAAGGTGCG  
 CTGGCAGGAGACGGTGGAGAACCTGCAGTACATGCTCAACAACATCTCCGGCGATGCTCTGGTGGCCGT  
 GGCTTTGTGGCTACCTGGGCCCTTACGGGCCAGTACCGCACGGTGTCTACGACAGCTGGGTCAAGC  
 AGCTCAGGAGCCACAATGTCCACACACCTCCGAGCCACGCTAATCGGGACGCTGGGGAACCCCTGTGAA  
 GATCCGATCGTGGCAGATCGCTGGCCTCCCAACGACACACTGTAGTGGAGAACGGGGTCAACACAG  
 TTTTCCCAGCGCTGGACCACTTCAATTGACCTCAGAGCCAGGCCAAACAATGGATCAAGAACATGGAGA  
 AGGACAATGGGCTGGATGTGTTCAAGTTGAGTGACCGGACTTCTGCGCAGCATGGAGAACGCCATCCG  
 CTTTGGCAAGCCATGTCTCTGGAGAACGTGGGCGAGGAGCTAGACCCAGCCCTGGAGCCAGTGTGCTC  
 AAGCAGACGTACAAGCAGAGGGAAACACGGTGTGAGTGGGGGACACGGTGTACCCCTACCATGAGG  
 ACTTCAGGATGTACATCACCAACAGCTGCCAACCCACACTACACGCCCGAGATCTCCACCAAACCTCAC  
 CCTCATCAACTTACCCTGTGCGCCAGTGGCTAGAGGACCAGCTACTGGGCCAGGTAGTGGCAGAGGAG  
 CGACCCGACCTGGAGGAGGCCAAGAACCAGCTGATTATCAGTAATGCCAAGATGCGCCAGGAGTGAAGG  
 ACATTGAGGACCCAGATCTGTACCGGCTCAGCTCCTCCGAGGGCAACCCTGTAGATGACATGGAACCTCAT  
 CAAGGTGCTGGAAGCCTCCAAGATGAAGCTGCTGAGATCCAGGCCAAAGTCAGGATTGCAGAGCAGACG  
 GAGAAGGACATCGACCTGACGCGCATGGAGTACATACCGTGGCCATCCGACCCAGATCCTCTTCTTCT  
 GTGTGTCGACCTGGCCAACGTGGACCCCATGTACCAAGTACTCCCTTGTAGTGGTTTCTCAACATCTTCT  
 CTCGGGCATCGCCAACTCAGAGAGAGCAGACAACCTGAAGAAGCGCATCTCCAACATCAACCGCTACCTG  
 ACCTACAGCCTTACAGCAACGTCTGCCGAGCCTCTTTGAGAAGCACAAGCTGATGTTTGCCTTCTGCTG  
 TGTGTGTTGCGATCATGATGAACGAGGGCAAAATCAACCAGAGTGAAGTGGCGATACCTCTGTCTGGGG  
 CTCATCTCGATCATGACTGAGAATCCGGCACCGGACTGGCTGTGACACCGGGCTTGGCGAGACATCCTA  
 GCACTCTCGAACCTGCCAACCTTTTCTCTTCTTCCGACTTCGTGAAGCACCTCTCAGAATTCGGGG  
 TCATCTTCGACAGCCTTGAGCCCAACGGGAGCCTTTGCCTGGCATCTGGGACCAGTACCTAGACCAAGT  
 CCAGAAGCTGCTAGTACTCCGCTGCCTGCGTGGGGACAAGGTTACCAACGCCATGCAGGACTTTGTGGCC  
 ACCAACCTGGAGCCACGCTTCAATTGAACCCAGACAGCCAATCTGTGAGTGGTGTCAAAGACTCCAAC  
 CCACCACACCCCTCATCTTTGTGCTGTACCCGGCACAGACCCTGCTGCCGACCTTACAAGTTTGGCGA  
 AGAAATGAAGTTCTCAAAAAGCTCTCTGCCATCTCCCTGGGCCAGGGGAGGGCCCTCGGGCAGAAGCC  
 ATGATGCGCAGCTCCATAGAGAGGGGCAAAATGGGTCTTCTTCCAGAAGTCCACCTGGCACCAGCTGGA  
 TGCCAGCCCTAGAAGCCTCATCGAGCACATCAACCCGACAAGGTACACAGGGACTTCGCTCTGCTGCTG  
 CACCAGCCTGCCAGCAACAAGTCCCAGTGTCCATCCTGCAGAACGGCTCCAAGATGACCATGAGCCG  
 CCACGCGGTGTCAGGGCAACCTGCTGAAGTCTATAGTGCCTTGGTGAAGACTTCTCAACTCCTGCC  
 ACAAGGTGATGGAGTTCAAGTCTCTGCTGCTGTCTGTGCTTGTTCATGGGAACGCCCTGGAGCGCCG  
 TAAGTTTGGGCCCTGGGCTTCAACATCCCCTATGAGTTCACGGATGGAGATCTGCGCATCTGCATCAGC  
 CAGCTCAAGATGTTCTGGACGAATATGATGACATCCCTACAAGGTCTCAAGTACACGGCAGGGGAGA  
 TCAATTACGGGGCCGTGCTACTGACTGGGACCGGCGCTGCATCATGAACATCTTGGAGGACTTCTA  
 CAACCTGACGTGCTCTCCCTGAGCACAGCTACAGCGCCTCGGGCATCTACCACAGATCCCGCTACC  
 TACGACCTCCACGGCTACCTCTCTACATCAAGAGCCTCCACTCAATGATATGCCTGAGATCTTTGGCC  
 TGCATGACAATGCCAACATCACCTTTGCCAGAACGAGAGCTTCCCTCCTGGGACCATCATCCAGCT  
 GCAACCCAAATCATCTTCTGAGGCAGCCAGGGCCGGGAGGAGATAGTGGAGGACGTACCCAAAACATT  
 CTGCTCAAGGTGCCTGAGCCTATCAACTTGCAATGGGTGATGGCCAAGTACCCAGTGTGTATGAGGAAT  
 CAATGAACACAGTACTAGTACAAGAGGTATTAGGTACAATCGGCTGCTGCAGGTGATCACACAGACACT  
 GCAAGACCTACTCAAGGCACTCAAGGGGCTGGTAGTGTCTCTCAGCTGGAGCTGATGGCTGCCAGC

CTGTACAACAATACTGTGCCTGAGCTCTGGAGTGCCAAGGCCTACCCATCGCTCAAGCCTCTGTCATCAT  
 GGGTCATGGACCTGCTGCAACGCCTGGACTTTCTGCAGGCCTGGATCCAAGATGGCATCCAGCTGTCTT  
 CTGGATCAGTGGATTCTTCTTCCCCAGGCTTTCTTAACAGGCACTCTGCAGAAATTTGCCCGCAAATTT  
 GTCATCTCCATTGACACCATCTCCTTTGATTTCAAGGTGATGTTTGAGGCACCATCAGAGTTAACACAAA  
 GACCCCAAGTAGGGTCTATATCCATGGATTATCTCTGGAAGTGCCCGCTGGGATCCAGAGGCCTTCCA  
 GCTGGCTGAGTCTCAGCCCAAGGAGCTGTACACAGAGATGGCCGTTATCTGGCTCTTGCCAACACCCAAC  
 CGCAAGGCCAGGACCAGGACTTTACCTGTGCCCATCTACAAGACACTGACTCGTGTGGAACACTAT  
 CAACCACAGGACTCTACCAACTATGTATTGCTGTGGAGATCCCCACCCATCAGCCCCAGCGACTG  
 GATAAAGCGTGGTGTGGCCCTCATCTGTGCCCTGGACTAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG212699 representing NM\_015512  
 Red=Cloning site Green=Tags(s)

MEQPNSKGYSLGRTPQGPECSSAPAVQVGTGRGLEYNPGKILPGSDYGLGNPPALDPKPLPHLPLPPAPPT  
 LSDLGQPRKSPLTGTDDKYPLMKQRGFYSIDILSPGTLDQLGEVCRGPRMSQNLRLQADLDFKTPRVGSFE  
 VPEDFQERMEQQIGSTTRLLAQDFPLQAYEPMQVPPFQVLPQGHPRKIEIERRKQQYLSLDIEQLLFS  
 QGIDSNKLMRHLHDHQPQTIEQGHDPFIPIYLPKVFNDNEDFCRTPREWINMGLEPGSLDRKVPVPGKA  
 LLPTDDFLGHEDPKSQKLYKWCEVGLDYDEEKKLYLVHKTDEKGLVRDEMGRPILNAGVTTEGRPLQ  
 VCQYVWPRIQLLFCaedPCMFaQRVQVQANALRNTEALLLYNLVYDCMPSDGQHVISEQSLSKIKQWALS  
 TPRMRKGPSVLEHLSSLAREVSLDYERSMKNKINFHVSSKPFETFSYVTLPKKEEQVPERGLVSVPKYH  
 FWEQKEDFTFVSLLTRPEVITALSKVRAECNKVTAMSLFHSSLSKYSHLEEFEQIQSQTFVQVQMFKDS  
 WISSLKVAMRSSLRDMSKGWYNLYETNWEVYLMSKLRKLMELVKYMLQDTRFLVQDSLASFSSQFISDTC  
 CSQLNCTDDMVWGGDLINSPYRPRKNPLFIMDLVLDSSGVHYSTPLEQFEASLLNLFDKGILATHAVPQL  
 EKLVMEDIFISGDPLLESVGLHEPLVEELRATIASAVSKAMIPLQAYAKEYRKYLELNNNDIASFLKTYQ  
 TQGLLAQEVREVVLTHLREKEILDSSLPSSIIIGPFYINTDNVQSLSKRKRALATSVLDILAKNLHKEV  
 DSICEEFRSISRKIYEKPNSEIELAELREWMKGIPERLVGLEERIVKVMDDYQVMDEFLYNLSSDDFNDK  
 WIASNWPSKILGQIELVQQQHVEDEEKFRKIQIMDQNNFQEKLEGLQLVVAGFSIHVEISRAHEIANEVR  
 RVKQLKDCQQLAMLNNRERIFSLPITNYDKLSRMVKEFQPYLDLWTTASDWLRWSEWMMNDLSAIDA  
 EQLKENVVEAFKTMHKCKVKQFKDMPACQEVALDIRARIEEFKPYIPLIQGLRNPGRIRHWETLSNQINI  
 NVRPKANLTFARCLEMNLQDHIESISKVAEVAGKEYAIEQALDKMEKEWSTILFNVLPHYKATDTYILKSP  
 DEASQLLDDHIVMTQNSFSPIYKPFQQRINSWENKLLKLTQEVLEEWLNCQRSWLYLEPIFSSSEDINQQL  
 PVESKRYQTMERIWKKIMKNAYENREVINVCSDLRMLDSLRCNKILDLVQKGLSEYLETKRSAFPRFYF  
 LSDDELLEILSQTkdPTAVQPHLRKCFENIARLLFQEDLEITHMYSAGEEVLQCFSIYSSNVEDWLRE  
 VERSMKASVHDIIEKAI RAYPTMPRTQWVLNWPQQVTIAGCQTYWTMEVAEAEAGNLSQLFPQLCQQL  
 SDLVALVRGKLSRMQRAVLSALIVIEVHAKDVVSKLIQENVVSVNDFQWISQLRYWWTNNDLYIRAVNAE  
 FIYGYEYLGNSGRLVITPLTDRCYLTLTGALHLKFGGAPAGPAGTGKTETTKDLGKALAIQTVVFNCSQDQ  
 LDFMAMGKFFKGLASAGAWACFDEFNRIDIEVLSVVAQQITTIQKAQQQRVERFMFEGVEIPLVPSCAVF  
 ITMNPgyAGRTELpdNLKALFRPVAMVpDYAMITEISLysFGFNEASVLAkkITTTFKLSSEQLSSQDH  
 YDFGMRavKTVISAAGNLKRENpSMNEELICLRAIRDVnVPKFLQEDLKLfSGIVSDLFPTIkeEDTDYg  
 ILDEAIReACrNSNLKdVEGFLTKCIQLYETTvrHGLMLVGPTGSGKSTCYRVLAAAMTSLKGQPSISG  
 GMYEAVNYVVLNPKSITMGQLYGEFDLLTHEWTDGIFSSFIRAGAITSDTNKKWYMFdGpVDAIWIENMN  
 TVLDDNKKLCLSSGEI IKLTEAMTMMFEVQDLAVASPATVSRCGMVYLEPSILGLMPFIECWLRLPPLL  
 KPYEEHFkALFVSfLEESIsvRssvKEVIastncNLtmsllkLLDCFFkPFLPREGLKkIPSEKLSRIV  
 ELIEPWFIFSLIWSVGATGDSSGRTSFShwLRLKMEneQLTLfPEEGLVfDYrLEDAGISGTNDSEDEE  
 EeYkQVAwVwMDSSAPFTMVPDtnYcNIIVPTMDTVQMSHLLDMLLtnKKPVLcIGPTGTGkTLTISDK  
 LLKnlALDYIShflTfSARTsANQTDfIDSKLDKRRKGVfGPPLGRNFIFfIDDLNMPALETYGAQPPI  
 ELLRQwMDHGgwyDRKIIGAFKnlVDINfVCAMgPPGGGRNTVTPRLMRHFnyLSfAEMDEVSkkRIFST  
 ILGNwLDGLLGEKSYRERVPgAPHIAHFTEPLVEATIMVYATITSQLLPTPAKSHYTFNLRDLskVfQGM  
 LMADPAKVEDQVQLRLWYHENCrvFRDRLVNEEDRSWfDQLLKRcMEQWEVTFnkVCPfQPIlyGDFMS  
 PGSDVksYELITSESKMMQVIEEYIEDYNQINTAKLKLVLfMDAMSHICRISRTLrQALGNALLGvGGS  
 GRSSLTRLASHMAEYECfQIELSKNYGMSEWRDDVKKVLLKAGLQNLPIfTLfSDTQIKNEsfLEDINNV

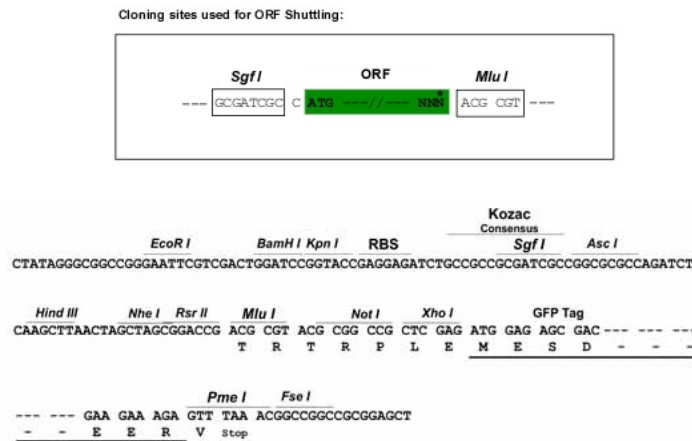
LNSGDIPNLYTADEQDQIVSTMRYIQEQGLQPTKANLMAAYTGRVRSNIHMVLCMSPIGEIVFRARLRQF  
 PSLVNCCTIDWFNEWPAEALKSVATVFLNEIPELESSQEEIQGLIQVCVYIHQSVSKKCIYLAELTRHN  
 YVTPKSYLELLHIFSILIGQKLELKTAKNRMKSGLDKLLRTSEDAKMQEDLESMPHLLLEEAAKDTMLT  
 MEQIKVDTAIAEETRNSVQTEEIKANEKAKKAQAIADDAQKDLDEALPALDAALASLRNLKNDVTEVRA  
 MQRPPPGVKLVIEAVCIMKGIKPKKVPGEKPGTKVDDYWEPEGKLLQDPGHFLESFKFKDKDNIGDVIK  
 AIQPYIDNEEFQPATIAKVSACTSICQWVRAMHKYHFVAKAVEPKRQALLEAQDDLGVTRILDEAKQR  
 LREVEDGIATMQAKYRECITKKEELELKECEQCEQRLGRACKVRTLLLQGLQAGPAQTGARKDQAGGWSG  
 GCPHPLPGNPGATVGRASPRPLAQPPRAHPTGLPLQLINGLSDEKVRWQETVENLQYMLNNISGDVLVAA  
 GFVAYLGPFTGQYRTVLVDSWVKQLRSHNPHTSEPTLIGTLGNPVKIRSWQIAGLPNDTLVENVGINQ  
 FSQRWTHFIDPQSQANKWIKNMEKDNGLDVFKLSDRDFLRSMENAIRFGKPCLEENVGEELDPALEPVL  
 KQTYKQQGNTVLKLDGTVIPYHEDFRMYITTKLPNPHYTPEISTKLTINFTLSPSGLEDQLLQGVVAEE  
 RPDLEEAKNQLIISNAKMRQELKDIEDQILYRLSSSEGNPVDDMELIKVLEASKMKAAEIQAKVRIAEQT  
 EKDIDLTRMEYIPVAIRTQILFFCVSDLANVDPMYQYSLEWFLNIFLSGIANSERADNLKKRISINRYL  
 TYSLYSNVCRSLFEKHKLMFAFLLCVRIMMNEGINQSEWRYLLSGGSISIMTENPAPDWLSDRAWRDIL  
 ALSNLPTESSFSDFVKHLSEFRVIFDSEPHREPLPGIWDQYLDQFQKLLVLRCLRGDKVTNAMQDFVA  
 TNLEPRFIEPQTANLSVVFKDSNSTTPLIFVLSPGTDPADLYKFAEEMFKSKLSAISLQGGQGPRAEA  
 MMRSSIERGKWVFFQNCHLAPSWPALERLIEHINPDKVHRDFRLWLTSLPSNKFVPSILQNGSKMTIEP  
 PRGVRANLLKSYSSLGEDFLNSCHKVMEFKSLLSLCLFHGNALERRKFGPLGFNIPYEFDGDRLICIS  
 QLKMFLEDDIPYKVLKYTAGENYGGRTDDWDRRCIMNILEDFYNPDVLSPEHSYSASGIYHQIPPT  
 YDLHGYSYIKSLPLNDMPEIFGLHDNANITFAQNETFALLGTIIQLQPKSSSAGSQGREEIVEDVTQNI  
 LLKVPPEINLQWYMAKYPVLYEESMNTVLVQEVIRYNRLQVITQTLQDLLKALKGLVVMSSQLELMAAS  
 LYNNTPVELWSAKAYPSLKLSSWYMDLLQRLDFLQAWIQDGIPAVFWISGFFFPQAFLTGTLQNFARKF  
 VISIDTISDFKVMFEAPSELTQRPQVGCYIHGLFLEGARWDPEAFQLAESQPKELYTEMAVIWLLPTPN  
 RKAQDQDFYLCPIYKTLTRAGTLSTTGHSTNYVIAVEIPTHQPQRHWIKRGVALICALDY

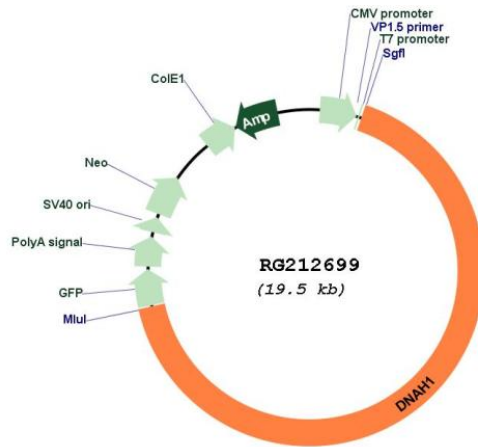
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_015512

**ORF Size:** 12990 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\\_015512.3](#), [NP\\_056327.3](#)

**RefSeq Size:** 13114 bp

**RefSeq ORF:** 12798 bp

**Locus ID:** 25981

**UniProt ID:** [Q9P2D7](#)

**Cytogenetics:** 3p21.1

**Domains:** Dynein\_heavy

**Protein Pathways:** Huntington's disease

**Gene Summary:** This gene encodes an inner dynein arm heavy chain that provides structural support between the radial spokes and the outer doublet of the sperm tail. Naturally occurring mutations in this gene are associated with primary ciliary dyskinesia and multiple morphological anomalies of the flagella that result in asthenozoospermia and male infertility. Mice with a homozygous knockout of the orthologous gene are viable but have reduced sperm motility and are infertile. [provided by RefSeq, Feb 2017]