

## Product datasheet for **RG216945**

### GLI3 (NM\_000168) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GLI3 (NM_000168) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GLI3
Synonyms:	ACLS; GCPS; GLI3-190; GLI3FL; PAP-A; PAPA; PAPA1; PAPB; PHS; PPDIV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216945 representing NM_000168 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGGCCAGTCCCACAGCTCCACGACCACTGAAAAGAAAAAGTTGAGAATTCATAGTGAAGTGCT  
CCACTCGAACAGATGTGAGCGAGAAAGCCGTTGCCTCCAGCACCCTTCTAATGAGGATGAAAGTCTCG  
ACAGACTTATCACAGAGAGAGAAGAAACGCAATCACTATGCAGCCACAGAATGTCCAGGGGCTCAGCAA  
GTCAGTGAGGAACCTTCAACATCGAGTGACGAGAGGGCCTCATTGATCAAGAAAGAGATCCATGGGTCCC  
TGCCACACGTGGCGGAGCCCTCTGTGCCGTACCGGGACGGTGTGGCCATGGACCCAGGAATGGTTA  
CATGGAGCCCCACTACCACCCTCCTCATCTTTCCCTGCCTTCCATCCTCCTGTACCAATTGATGCCAGA  
CATCATGAGGGCCGTTACCATTACGATCCATCTCCGATTCCTCCATTGCATATGACTTCCGCCTTATCTA  
GTAGCCCTACGTATCCGGACCTGCCCTTATTAGGATCTCCCCACACCCGGAACCCCGCTGCTGCTCCGA  
GTCTCCCTTACGCCCTCCACATCCCTACATTAATCCCTACATGGACTATATCCGCTCCTTGACAGCAGC  
CCATCGCTCTCCATGATCTCAGCAACCCGTGGGCTGAGCCCTACAGATGCGCCCCATGCAGGAGTCAGCC  
CAGCAGAATACTATCATCAGATGGCCCTGCTAACTGGCCAGCGCAGCCCTATGCAGACATTATCCCTC  
AGCTGCCACCGCCGACGGGGCCATCCACATGGAATATCTTCATGCTATGGATAGCACCAGATTCTCC  
AGCCCCAGGCTGTCAGCCAGGCCGAGCCGAAAACGTACACTGTCCATATCACCCTCCGATCATAGCT  
TTGACCTTCAGACCATGATAAAGGACGTCTCCCAACTCCTTGGTCACGATTCTCAATAATCCCGTAGCAG  
CTCTTCAGCAAGTGGCTCCTATGGTCACTTATCTGCAAGTGAATCAGCCCTGCCTTGAGCTTACCTAC  
TCTTCCGCGCCCTCTCTCTCCACATGCATCAGCAGATCCTAAGCCGACAACAGAGCTTAGGTTACGCTT  
TTGACACAGCCCTCCACTCATCCACCCTGCCCAACTTTTCCAACACAGAGGCCATTCCAGGGATCCC  
TACGGTTCTGAACCCCGTCCAGGTCAGCTCCGGCCCTTCTGAGTCTCACAGAACAAGCCACGAGTGAG  
TCTGCAGTGAGCAGCACTGGTGACCCGATGCACAACAAGAGGTCCAAGATCAAACCCGATGAAGACCTCC  
CCAGCCCAGGGGCTCGGGGCAGCAGGAACAGCCGAAGGAACAACCTTGTCAAGGAGGAAGGGGACAA  
AGATGAAAGCAAACAGGAGCCTGAAGTCATCTATGAGACAACTGCCACTGGGAAGGCTGCGCAGGGAG



[View online »](#)

TTCGACACCCAAGAGCAGCTTGTGCACCATATAAATAACGACCATATTCATGGAGAGAAGAAGGAGTTCCG  
 TGTGCAGGTGGCTGGACTGCTCAAGAGAGCAGAAACCCCTCAAAGCCAGTATATGTTGGTAGTGCATAT  
 GAGAAGACACACGGGCGAGAAGCCTCACAAATGCACTTTTGAAGTTGCACAAAGGCCTACTCGAGACTA  
 GAAAACCTGAAAACACACTTGAGATCTCACACTGGAGAGAAACCATACGTCTGTGAGCAGGAAGGTTGCA  
 ACAAGGCTTTCTCAAATGCCTCTGATCGCGCCAAACACCAAAACAGAACGCATTCCAATGAGAAACCATA  
 TGTGTGAAAAATCCCAGGCTGACTAAGCGTTACACAGACCCAAGCTCCCTCCGGAACATGTGAAGACA  
 GTGCATGGCCAGAGGCTCATGTCAACAAGAAGCAGCGAGGGGACATCCATCCTCGGCCGCCACCCCGCA  
 GAGATTCCGGCAGCCATTACAGTCCAGGTCGCCCTGGCCGACCGACTCAGGGAGCCCTTGGTGAGCAGCA  
 GGACCTCAGCAACACTACCTCAAAGCGGAAGAATGCCTCCAGGTGAAAACCGTCAAGGCAGAGAAGCCA  
 ATGACATCTCAGCCAAGCCCTGGTGGTCAGTCTTCATGCAGCAGCCAACAGTCCCCATCAGCAACTATT  
 CCAACAGTGGGCTCGAGCTTCTCTGACCGATGGAGGTAGTATAGGAGACCTCAGTGCCATCGATGAAAC  
 CCCAATCATGGACTCAACCATTTCCACTGCAACCACAGCCCTTGCTTTGCAAGCCAGGAGAAACCCGGCA  
 GGGACCAATGGATGGAGCAGTAAAATAGAAAGGCTAAAACAAGTGAATGGAATGTTTCCGCGACTGA  
 ACCCCATTCTACCCCTAAAGCCCTGCGGTCTCTCTCATAGGAAATGGCACACAGTCCAACAACAC  
 CTGCAGCTTGGGTGGGCCATGACGCTTCTCCGGGCAGAAGCGACCTCTCTGGGTGGAGTCACTATG  
 CTGAACATGCTCAACAGAAGGGACAGCAGCGCCAGCACCATCAGCTCGGCCCTACCTGAGCAGCCGCCCT  
 CCTCAGGGATCTCGCCCTGCTTCTCCAGCCGCCCTCCAGCGAGGCGTCAAGGCCGAGGGCCGGCCGCA  
 GAACGTGAGCGTGGCCGACTCCTACGACCCCATCTCCACCGACGCCTCGCGCCGCTCCAGCGAAGCCAGC  
 CAGAGCGACGGCTGCCAGCCTGCTCAGCCTCAGCCCGCCAGCAGTACCGCCTCAAGGCCAAGTACG  
 CGGCTGCCACAGGAGGGCCGCGCCGACGCCCTGCCAACATGGAGAGGATGAGCCTGAAGACGCGCCT  
 GGCCTGCTCGGGATGCCCTCGAGCCTGGCGTGGCCCTGCCTCCAGTTCATGCCCGAGGAGGTGCAGC  
 GACGGGGAGCCACGGTACGGCGGCCACCTGCAGCCGACGATGCGTGGCCACGGCGTGAGGA  
 GGGCCAGCGACCCGGTGGGACAGGCTCCGAGGGCTGGCCCTGCCTCGTGTGCCGCTTCAAGGAGG  
 CAGCAGCTGCAACCCCGGCGATGGCCAGTCCGCGGAGAAAGCCAGTCTCGTGTTCAGAATTACACG  
 CGGCCGAGGGCCGAGTCCCGAACTTCCACTCGTCCCTGTCTCCAGCATCACCGAGAAGTCA  
 CCCTGGAGTCCCTGACCATGGACGCTGATGCCAACCTGAACGATGAGGATTTCTGCCGGACGAGTGGT  
 GCAGTATTTAAATCCCAGAACCAAGCAGGGTACGAGCAGCACTTCCCCAGCGCCCTCCCGGACGACAGC  
 AAAGTGCCCCACGGGCCCGGTGACTTTGACGCGCCCGGGTCCAGACAGCCAGCTGGCCAGCAGTTCC  
 ATGCCCTCGAGCAGCCCTGCCCGAGGGCAGAAAACCGACCTGCCATTAGTGAACGAAGTCAAGTCA  
 CGGAAGCGCCGACCTGTCTCTCCAAGTCAAGTGTGGGCCGCGCCCGCTGTGCCGAGACTCGCGCC  
 TTTGGTTCTGCAACGGCATGGTGTCCACCCGAGAACCCTTGAGGAGCGGGCTGTGGGGCTATC  
 AGACCCTCGGGGAGAACAGCAACCCCTACGGTGGCCAGAGCACTTGATGCTCCACAACAGCCCCGGAAG  
 TGGCACCAGTGGAAACGCCTTCCATGAACAGCCCTGTAAGGCCCCGCAAGTATGGAACTGTCTAACAGG  
 CAGCCAGTGGCCCTGGTGCCTCGACGGTGCCTGTGGTGGCCGGATTCAAGCCTCAAAGCTGAAGAGCA  
 CCCCCATGCAAGGGAGCGGGGGCCAGCTGAATTTGGCCCTGCCGGTAGCGCCAAATGAGTCAAGTGGCAG  
 CATGGTGAATGGCATGCAGAACCAGGACCCAGTGGGACAGGGGTACCTGGCTCACCAGCTCCTCGGGCAG  
 AGCATGCAGCACCCGGGGCAGGCCGCCCGGTGAGCAGATGCTTGGGACAGATTAGTGTACCTCACACA  
 TCAACATCTACCAAGGGCCAGAGAGTGCCTGCCAGGGCTCACGGCATGGCAGCCAGCCGCTCAAGCTT  
 GGCAGTTGTGAGGGCTACCAGCCATGTGCCAGCTTTGGGGCAGCAGGCCAGGCTATGCCGAGGGAC  
 AGCCTTGCTCTGCAGTACGACAGCTCAGTGACACAAGTCAAGCTGCAGGGTGAATGGTATCAAGATGG  
 AGATGAAAGGGCAGCCCCATCCGCTGTGCTCTAATCTGCAGAATTACTCTGGTCAAGTCTATGACAAAC  
 CGTGGGCTTCAAGTCAAGACAGAAAGCTGGTTCATTCTCTATTTAGACGCCAGCTGCCTGCTACAG  
 GGGACAGCGCCAAAACCTGAGTTACTTTCCCGAGGTGCTAATCAGGTGACAAGCACAGTGGACAGCC  
 TCGACAGCCATGACCTGGAAGGGGTACAGATTGACTTCGATGCCATCATAGACGATGGGGACCACTCCAG  
 CCTGATGTGGGGGCCCTGAGCCCAAGTATCATTGAGAACCTTTCCCATAGCTCCTCCCGCTCACCAGC  
 CCTCGGGCGTCCCTCCATTCCAGCGCTGTCCATGAGCACCACCAACATGGCTATCGGGGACATGAGTT  
 CTTTGTGACCTCCCTAGCGGAAGAAAGCAAATTCCTTGCAGTTATGCAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG216945 representing NM\_000168  
 Red=Cloning site Green=Tags(s)

```

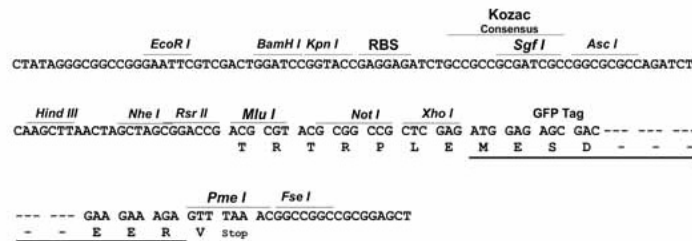
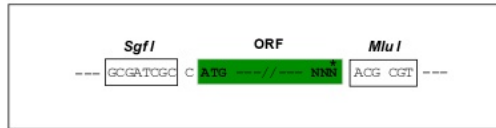
    MEAQSHSSTTTEKKKVENSIKVCSTRTDVSEKAVASSTTSNEDESPGQTYHRERRNAITMQPQNVQGLSK
    VSEEPSTSSDERASLIKKEIHGSLPHVAEPSVPYRGTVMFAMDPRNGYMEPHYHPPHLLFPAFHPPVPIDAR
    HHEGRYHYDPSPIPLHMTSALSSSPTYDLPFIRISPHRNPAASESPFSPHPYINPYMDYIRSLHSS
    PSLSMISATRGLSPTDAPHAGVSPA EYHQMALLTGQRSPYADIIPSAATAGTGAIHMEYLHAMDSTRFS
    SPRLSARPSRKRTLISPLSDHSFDLQTMIRTSFNLSLVTILNNSRSSSSASGSYGHLSASAI SPALSFTY
    SSAPVSLHMHQQLSRQQSLGSFAFGHSPPLIHPAPTFTPTQRPPIGIPTVLNPVQVSSGPESSQNKPTSE
    SAVSSTGDPMHNRKSKIKPDEDLPSPGARGQQEQPEGTTLVKEEGDKDESKQEPEVIYETNCHWEGCARE
    FDTQEQLVHHINNDHIHGEKKEFVCRWLDCSREQKPFKAQYMLVVHMRRHTGEKPHKCTFEGCTKAYSRL
    ENLKTHLRSHTEKPYVCEHEGCNKAFSNASDRAKHQNRTHSNEKPYVCKIPGCTKRYTDPSSLRKHVKT
    VHGP EAHVTKQRGDIHPRPPPRDSGSHSQRSPGRPTQALGEQDLNNTTSKREECLQVKTVKAKEP
    MTSQSPSGGQSSCSSQSPISNYSNSGLELPLTDGGSIGDLSAIDETPIMDSTISTATTALALQARRNPA
    GTKWMEHVKLERLKQVNGMFPRLNPILPPKAPAVSPLIGNGTQSNNTCSLGGPMTLLPGRSDL SGVDVTM
    LNMLNRRDSSASTISSAYLSSRRSSGISPCFSSRRSSEASQAEGRPQNVSVADSYDPISTASRRSSEAS
    QSDGLPSLLSLTPAQYRLKAKYAAATGGPPPTPLPNMERMSLKTRLALLGDALEPGVALPPVHAPRRCS
    DGGAHGYGRRHLQPHDALGHGVRRAADPVRTGSEGLALPRVPRFSSLSSCNPPAMATSAEKSLVLQNYT
    RPEGGQSRNFHSSPCPPSITENVTL ESLTMDADANLNDEDLFPDDVVQYLNSQNQAGYEQHFPSALPDDS
    KVPHGP GDFDAPGLPDSHAGQQFHAEQPCPEGSKTDLPIQWNEVSSGSADLSSSKLCKGPRPAVPQTRA
    FGF CNGMVVHPQNPLRSGPAGGYQTLGENSNPYGGPEHMLHNSPGSGTSGNAFHEQPCKAPQYGNCLNR
    QPVAPGALDGACGAGIQASKLKSTPMQSGGQLNFGLPVAPNESAGSMVNGMQNDPVGQYL AHQLLGD
    SMQHPGAGRPGQQMLGQISATSHINIYQPE SCLPGAHGMSQPSLAVVRGYQPCASFYGGSSRRQAMP RD
    SLALQSGQLSDTSQTCRVNGIKMEMKGGPHPLCSNLQNYSGQFYDQTVGFSQQDTKAGSFISDASCLLQ
    GTSAKNSELLSPGANQVTSTVDSLSDHLEGVQIDFDAIIDDGDHSSSLMSGALSPSIIQNL SHSSRLTT
    PRASLPFPALSMSTTNMAIGDMSSLLTSLAEESKFLAVMQ
    
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM\_000168

ORF Size: 4740 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\\_000168.2](#), [NP\\_000159.2](#)

**RefSeq Size:** 8228 bp

**RefSeq ORF:** 4743 bp

**Locus ID:** 2737

**UniProt ID:** [P10071](#)

**Cytogenetics:** 7p14.1

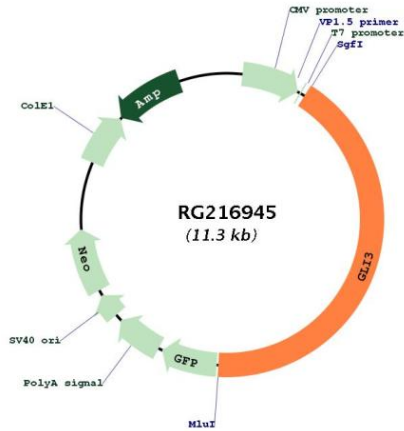
**Domains:** zf-C2H2

**Protein Families:** Adult stem cells, Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS

**Protein Pathways:** Basal cell carcinoma, Hedgehog signaling pathway, Pathways in cancer

**Gene Summary:**

This gene encodes a protein which belongs to the C2H2-type zinc finger proteins subclass of the Gli family. They are characterized as DNA-binding transcription factors and are mediators of Sonic hedgehog (Shh) signaling. The protein encoded by this gene localizes in the cytoplasm and activates patched Drosophila homolog (PTCH) gene expression. It is also thought to play a role during embryogenesis. Mutations in this gene have been associated with several diseases, including Greig cephalopolysyndactyly syndrome, Pallister-Hall syndrome, preaxial polydactyly type IV, and postaxial polydactyly types A1 and B. [provided by RefSeq, Jul 2008]

**Product images:**


Circular map for RG216945