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Product datasheet for RG202920

Twist (TWIST1) (NM_000474) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Twist (TWIST1) (NM_000474) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Twist
Synonyms:	ACS3; bHLHa38; BPES2; BPES3; CRS; CRS1; CSO; SCS; SWCOS; TWIST
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG202920 representing NM_000474
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATGCAGGACGTGTCCAGCTCGCCAGTCTCGCCGGCCGACGACAGCCTGAGCAACAGCGAGGAAGAGC
CAGACCGGCAGCAGCCGCCGAGCGGCAAGCGCGGGGGACGCAAGCGGCGCAGCAGCAGGCGCAGCGCGGG
CGGCGGCGCGGGGCCCGGCGGAGCCGCGGGTGGGGGCGTCGGAGGCGGCGACGAGCCGGGCAGCCCGGCC
CAGGGCAAGCGCGGCAAGAAGTCTGCGGGCTGTGGCGGCGGCGGCGGCGCGGGCGGCGGCGGCGGCAGCA
GCAGCGGCGGCGGGAGTCCGCAGTCTTACGAGGAGCTGCAGACGCAGCGGGTCATGGCCAACGTGCGGGA
GCGCCAGCGCACCCAGTCGCTGAACGAGGCGTTCGCCGCGCTGCGGAAGATCATCCCCACGCTGCCCTCG
GACAAGCTGAGCAAGATTCAGACCCTCAAGCTGGCGGCCAGGTACATCGACTTCCTCTACCAGGTCCTCC
AGAGCGACGAGCTGGACTCCAAGATGGCAAGCTGCAGCTATGTGGCTCACGAGCGGCTCAGCTACGCCTT
CTCGGTCTGGAGGATGGAGGGGGCCTGGTCCATGTCCGCGTCCCAC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG202920 representing NM_000474
Red=Cloning site Green=Tags(s)

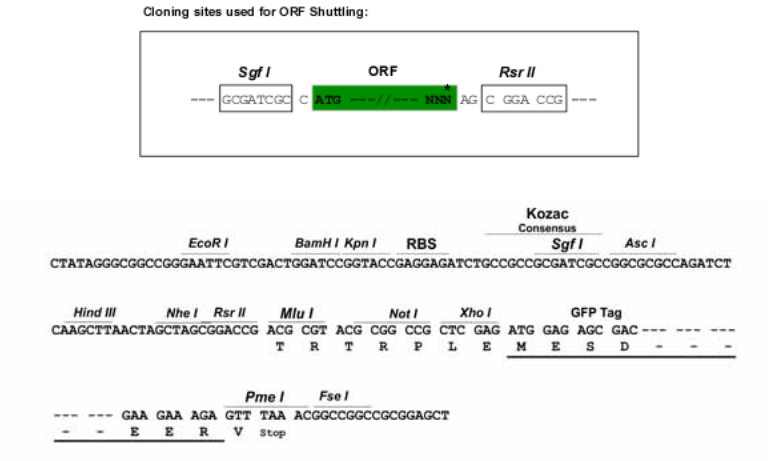
MMQDVSSSPVSPADDSLSNSEEEPDRQQPPSGKRGGRKRRSSRRSAGGGAGPGGAAGGGVGGGDEPGSPA
QGKRGKKSAGCGGGGGAGGGGGSSSGGGSPQSYEELQTQRVMANVRERQRTQSLNEAFAALRKIIPTLPS
DKLSKIQTLKLAARYIDFLYQVLQSDELDSKMASCSYVAHERLSYAFSVWRMEGAWSMSASH

SGPTRTRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

View online »

Cloning Scheme:



ACCN:	NM_000474
ORF Size:	606 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000474.4
RefSeq Size:	1669 bp
RefSeq ORF:	609 bp
Locus ID:	7291

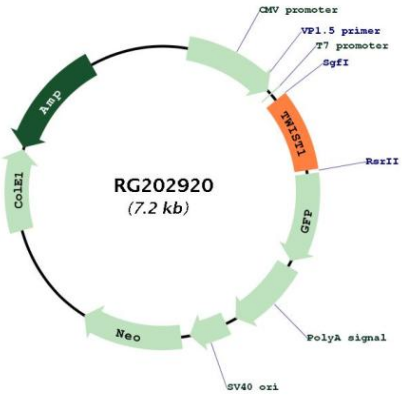
UniProt ID: Q15672

Cytogenetics: 7p21.1

Protein Families: Druggable Genome

Gene Summary: This gene encodes a basic helix-loop-helix (bHLH) transcription factor that plays an important role in embryonic development. The encoded protein forms both homodimers and heterodimers that bind to DNA E box sequences and regulate the transcription of genes involved in cranial suture closure during skull development. This protein may also regulate neural tube closure, limb development and brown fat metabolism. This gene is hypermethylated and overexpressed in multiple human cancers, and the encoded protein promotes tumor cell invasion and metastasis, as well as metastatic recurrence. Mutations in this gene cause Saethre-Chotzen syndrome in human patients, which is characterized by craniosynostosis, ptosis and hypertelorism. [provided by RefSeq, Jul 2020]

Product images:



Circular map for RG202920