

Product datasheet for **RG223856**

DNAJB14 (NM_024920) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	DNAJB14
Synonyms:	DnaJ (Hsp40) homolog, subfamily B, member 14; EGNR9427; EGNR9427, FLJ14281, MGC22187, PRO34683; FLJ14281; MGC22187; PRO34683
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG223856 representing NM_024920
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATATTGGAACATTGATATGGGATGGTGGACCTGTACCTAACACACACATAAACAAATGTAAAAATT
ACTATGAAGTACTTGGAGTTACGAAAGATGCTGGTGATGAAGATTTGAAAAAGCTTATAGAAAGCTTGC
TTTGAAGTTTCATCCAGACAAAAACCATGCACCTGGAGCAACAGATGCTTTTAAAAAGATTGAAATGCT
TATGCTGTTTTAAGTAATCCAGAAAAGCGAAAACAGTATGACCTCACGGGCAATGAAGAACAAGCATGTA
ACCACCAAAACAATGGCAGATTTAATTTCCATAGAGTTGTGAAGCTGATATACTCCAGAAGACTTGTT
TAATATATTTTTTGGGGTGGATTTCTTCAGGTAGTGTACATTCTTTTCAAATGGAAGAGCTGGTTAT
AGCCAACAACATCAGCATCGACATAGTGGACATGAAAGAGAAGAGGAAAGAGGAGATGGAGGTTTTCTG
TGTTTATCCAGCTGATGCCATAATTGATTGATCCTCGTGTCTATTATTAAGCCAGTTGATGGTCTCTAA
TCCTCCTTATTCCTTATATCCAGATCTGGAAGTGGGCAACTATTAATGCAACAGAAAAGTGGGT
GTTGTTTATTATGTCAACAAGGACTTCAAAAATGAATATAAAGGAATGTTATTACAAAAGGTAGAAAAGA
GTGTGGAGGAAGATTATGTGACTAATATTCGAAATAACTGCTGGAAGAAAGACAACAAAAACAGATAT
GCAGTATGCAGCAAAAGTATACCGTGATGATCGACTCCGAAGGAAGGCAGATGCCTTGAGCATGGACAAC
TGTAAGAATTAGAGCGGCTTACAGTCTTTATAAAGGAGGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



Protein Sequence:

>RG223856 representing NM_024920

Red=Cloning site Green=Tags(s)

MDIGTLIWDGGPVNTHINKCKNYEVLGVTKDAGDEDLKKAYRKLALKFHPDKNHAPGATDAFKKIGNA
YAVLSNPEKQRKYDLTGNEEQACNHQNGRNFHRCGEADITPEDLFNIFFGGFPSPGVSFVSNRAGY
SQQHQRHSGHEREEERDGGFVSFIQLMPIIVLILVSLLSQLMVSNNPPYSLYPRSGTGQTIKMQTENLG
VYYVYNKDFKNEYKGMLLQKVEKSVEEDYVTNIRNNCWKERQQKTDQMYYAAKVYRDDRLRRKADALSMDN
CKELERLTSLYKGG

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



CTATAGGGCGCGCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGCGCGCCAGATCT

EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI

CAAGCTTAAGTACTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- ---

HindIII NheI RsrII MluI NotI XhoI GFP Tag

T R T R P L E M E S D - - -

--- --- GAA GAA AGA GTT TAA ACGGCGCGCGGAGCT

- - E E R V stop

ACCN:

NM_024920

ORF Size:

882 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:

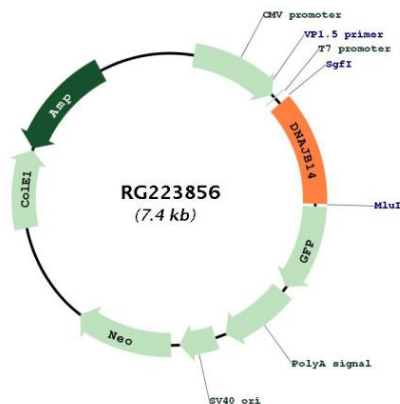
This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<u>NM_024920.3, NP_079196.3</u>
RefSeq Size:	4802 bp
RefSeq ORF:	884 bp
Locus ID:	79982
Cytogenetics:	4q23
Gene Summary:	Acts as a co-chaperone with HSPA8/Hsc70; required to promote protein folding and trafficking, prevent aggregation of client proteins, and promote unfolded proteins to endoplasmic reticulum-associated degradation (ERAD) pathway (PubMed:24732912). Acts by determining HSPA8/Hsc70's ATPase and polypeptide-binding activities (PubMed:24732912). Can also act independently of HSPA8/Hsc70: together with DNAJB12, acts as a chaperone that promotes maturation of potassium channels KCND2 and KCNH2 by stabilizing nascent channel subunits and assembling them into tetramers (PubMed:27916661). While stabilization of nascent channel proteins is dependent on HSPA8/Hsc70, the process of oligomerization of channel subunits is independent of HSPA8/Hsc70 (PubMed:27916661). When overexpressed, forms membranous structures together with DNAJB12 and HSPA8/Hsc70 within the nucleus; the role of these structures, named DJANGOs, is still unclear (PubMed:24732912).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG223856