

Product datasheet for **SC319285**

HSP27 (HSPB1) (NM_001540) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HSP27 (HSPB1) (NM_001540) Human Untagged Clone
Tag:	Tag Free
Symbol:	HSP27
Synonyms:	CMT2F; HEL-S-102; HMN2B; HS.76067; Hsp25; HSP27; HSP28; SRP27
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_001540.2 CCGCCTGCTAAAAATACCCGACTGGAGGAGCATAAAAAGCGCAGCCGAGCCAGCGCCCCG CACTTTTCTGAGCAGACGTCCAGAGCAGAGTCAGCCAGCATGACCGAGCGCCGCTCCCC TTCTCGCTCCTGCGGGGGCCAGCTGGGACCCCTTCCGCGACTGGTACCCGCATAGCCGC CTCTTCGACCAGGCCTTCGGGCTGCCCCGGCTGCCGGAGGAGTGGTCGAGTGGTTAGGC GGCAGCAGCTGGCCAGGCTACGTGCGCCCCCTGCCCCCGCCGCATCGAGAGCCCCGCA GTGGCCGCGCCCGCTACAGCCGCGCTCAGCCGGCAACTCAGCAGCGGGTCTCGGAG ATCCGGCACACTGCGGACCCTGGCGGTGTCCCTGGATGTCAACCACTTCGCCCCGGAC GAGCTGACGGTCAAGACCAAGGATGGCGTGGTGGAGATCACCGCAAGCACGAGGAGCGG CAGGACGAGCATGGCTACATCTCCCGGTGCTTCACGCGGAAATACACGCTGCCCCCGGT GTGGACCCACCAAGTTTCTCCTCCCTGTCCCCTGAGGGCACACTGACCGTGGAGGCC CCCATGCCCAAGCTAGCCACGCAGTCCAACGAGATCACCATCCCAGTCACCTTCGAGTCG CGGGCCAGCTTGGGGGCCAGAAAGCTGCAAAATCCGATGAGACTGCCGCAAGTAAAGC CTTAGCCCGGATGCCACCCCTGCTGCCGCCACTGGCTGTGCCTCCCCGCCACCTGTGT GTTCTTTTGATACATTTTCTTCTGTTTTTCTCAAATAAAGTTCAAAGCACCCCCAAAA AAAAAAAAAAAAAAAAAAAAAAAAAAAA
Restriction Sites:	Please inquire
ACCN:	NM_001540



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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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001540.2](#), [NP_001531.1](#)

RefSeq Size: 865 bp

RefSeq ORF: 618 bp

Locus ID: 3315

UniProt ID: [P04792](#)

Cytogenetics: 7q11.23

Domains: HSP20

Protein Pathways: MAPK signaling pathway, VEGF signaling pathway

Gene Summary:

This gene encodes a member of the small heat shock protein (HSP20) family of proteins. In response to environmental stress, the encoded protein translocates from the cytoplasm to the nucleus and functions as a molecular chaperone that promotes the correct folding of other proteins. This protein plays an important role in the differentiation of a wide variety of cell types. Expression of this gene is correlated with poor clinical outcome in multiple human cancers, and the encoded protein may promote cancer cell proliferation and metastasis, while protecting cancer cells from apoptosis. Mutations in this gene have been identified in human patients with Charcot-Marie-Tooth disease and distal hereditary motor neuropathy. [provided by RefSeq, Aug 2017]