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Product datasheet for RC201040

Hsp22 (HSPB8) (NM_014365) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Tag: Myc-DDK

Symbol: Hsp22

Synonyms: CMT2L; DHMN2; E2IG1; H11; HMN2; HMN2A; HSP22

Mammalian Cell Selection: Neomycin

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC201040 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGACGGTCAGATGCCCTTCTCCTGCCACTACCCAAGCCGCCTGCGCCGAGACCCCTTCCGGGACT
CTCCCCTCTCCTCTCGCCTGCTGGATGATGGCTTTGGCATGGACCCCTTCCCAGACGACTTGACAGCCTC
TTGGCCCGACTGGGCTCTGCCTCGTCTCTCCTCCGCCTGGCCAGGCACCCTAAGGTCGGGCATGGTGCCC
CGGGGCCCCACTGCCACCGCCAGGTTTGGGGTGCCTGCCGAGGGCAGGACCCCCCCACCCTTCCCTGGGG
AGCCCTGGAAAGTGTGTGTGAATGTGCACAGCTTCAAGCCAGAGGAGTTGATGGTGAAGACCAAAGATGG
ATACGTGGAGGTGTCTGGCAAACATGAAGAGAAACAGCAAGAAGGTGGCATTGTTTCTAAGAACTTCACA
AAGAAAATCCAGCTTCCTGCAGAGGTGGATCCTGTGACAGTATTTGCCTCACTTTCCCCAGAGGGTCTGC
TGATCATCGAAGCTCCCCAGGTCCCTCCTTACTCAACATTTGGAGAGAGCAGTTTCAACAACGAGCTTCC
CCAGGACAGCCAGGAAGTCACCTGTACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201040 protein sequence
Red=Cloning site Green=Tags(s)

MADGQMPFSCHYPSRLRRDPFRDSPLSSRLLDDGFGMDPFPDDLTASWPDWALPRLSSAWPGTLRSGMVP
RGPTATARFGVPAEGRTPPPFPGEPWKVCVNVHSFKPEELMVKTKDGYVEVSGKHEEKQQEGGIVSKNFT
KKIQLPAEVDPVTVFASLSPEGLLIIEAPQVPPYSTFGESSFNNELPQDSQEVTCT

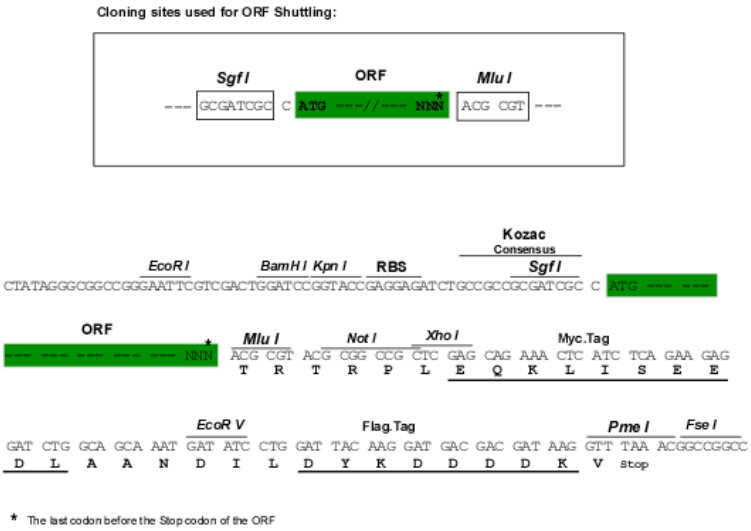
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6084_a11.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014365

ORF Size: 588 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.

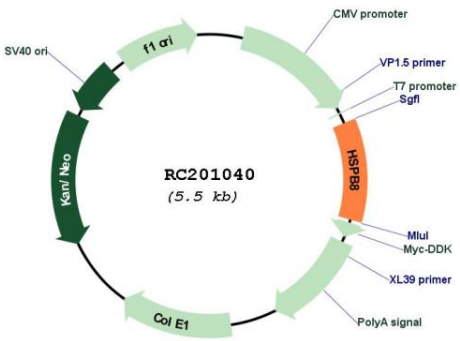
RefSeq: NM_014365.3

RefSeq Size: 2056 bp

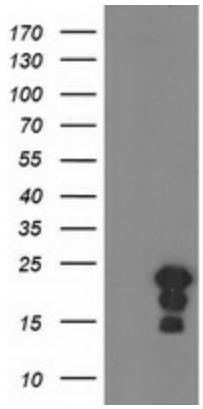
RefSeq ORF: 591 bp

Locus ID:	26353
UniProt ID:	Q9UJY1
Cytogenetics:	12q24.23
Domains:	HSP20
Protein Families:	Druggable Genome, Protein Kinase
MW:	21.6 kDa
Gene Summary:	The protein encoded by this gene belongs to the superfamily of small heat-shock proteins containing a conservative alpha-crystallin domain at the C-terminal part of the molecule. The expression of this gene in induced by estrogen in estrogen receptor-positive breast cancer cells, and this protein also functions as a chaperone in association with Bag3, a stimulator of macroautophagy. Thus, this gene appears to be involved in regulation of cell proliferation, apoptosis, and carcinogenesis, and mutations in this gene have been associated with different neuromuscular diseases, including Charcot-Marie-Tooth disease. [provided by RefSeq, Jul 2008]

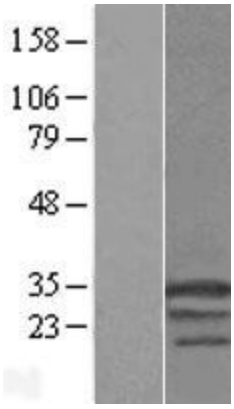
Product images:



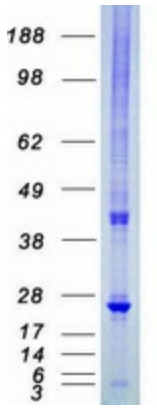
Circular map for RC201040



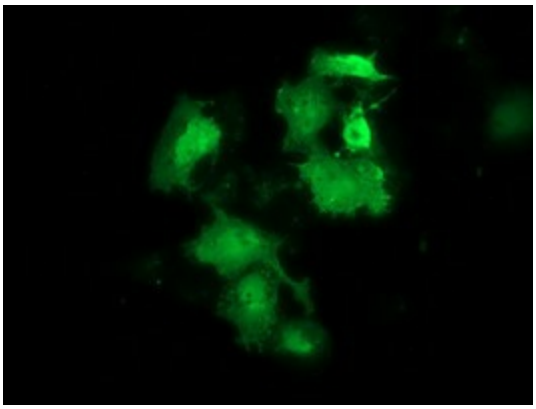
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HSPB8 (Cat# RC201040, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HSPB8 (Cat# [TA501210]). Positive lysates [LY415329] (100ug) and [LC415329] (20ug) can be purchased separately from OriGene.



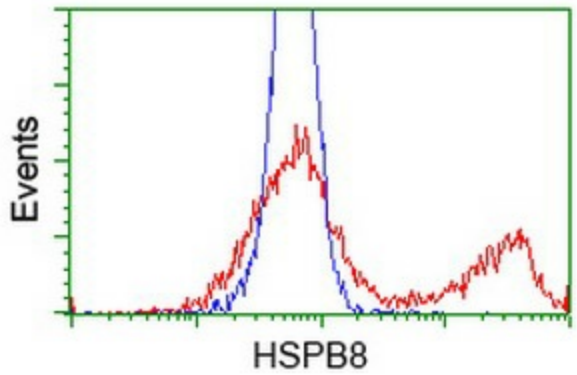
Western blot validation of overexpression lysate (Cat# [LY415329]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201040 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HSPB8 protein (Cat# [TP301040]). The protein was produced from HEK293T cells transfected with HSPB8 cDNA clone (Cat# RC201040) using MegaTran 2.0 (Cat# [TT210002]).



Anti-HSPB8 mouse monoclonal antibody ([TA501210]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY HSPB8 (RC201040).



HEK293T cells transfected with either RC201040 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-HSPB8 antibody ([TA501210]), and then analyzed by flow cytometry.