

Product datasheet for **RC200523L4V**

HSPA2 (NM_021979) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	HSPA2 (NM_021979) Human Tagged ORF Clone Lentiviral Particle
Symbol:	HSPA2
Synonyms:	HSP70-2; HSP70-3
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_021979
ORF Size:	1917 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC200523).
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.
RefSeq:	NM_021979.2
RefSeq Size:	2802 bp
RefSeq ORF:	1920 bp
Locus ID:	3306
UniProt ID:	P54652
Cytogenetics:	14q23.3
Domains:	HSP70
Protein Families:	Stem cell - Pluripotency



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Protein Pathways: Antigen processing and presentation, Endocytosis, MAPK signaling pathway, Spliceosome

MW: 70 kDa

Gene Summary: Molecular chaperone implicated in a wide variety of cellular processes, including protection of the proteome from stress, folding and transport of newly synthesized polypeptides, activation of proteolysis of misfolded proteins and the formation and dissociation of protein complexes. Plays a pivotal role in the protein quality control system, ensuring the correct folding of proteins, the re-folding of misfolded proteins and controlling the targeting of proteins for subsequent degradation. This is achieved through cycles of ATP binding, ATP hydrolysis and ADP release, mediated by co-chaperones. The affinity for polypeptides is regulated by its nucleotide bound state. In the ATP-bound form, it has a low affinity for substrate proteins. However, upon hydrolysis of the ATP to ADP, it undergoes a conformational change that increases its affinity for substrate proteins. It goes through repeated cycles of ATP hydrolysis and nucleotide exchange, which permits cycles of substrate binding and release (PubMed:26865365). Plays a role in spermatogenesis. In association with SHCBP1L may participate in the maintenance of spindle integrity during meiosis in male germ cells (By similarity).[UniProtKB/Swiss-Prot Function]