

Product datasheet for MC209680

Hcst (NM_011827) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hcst (NM_011827) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Hcst
Synonyms:	DAP10; KAP10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC209680 representing NM_011827

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGGACCCCCAGGCTACCTCCTGTTCTGCTTCTGCTCCAGTGGCTGCAAGTCAGACATCGGCAGGTT
CCTGCTCCGGATGTGGGACTCTGTCTCTGCCACTCTGGCAGGCCTAGTGGCTGCAGATGCGGTCATGTC
ACTCCTAATTGTAGGGGTGGTGTGTTGTATGTATGCGCCACACGGCAGGCCTGCCAAGAAGATGGTAGA
GTCTACATCAACATGCCTGGCAGAGGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja3103_a09.zip

Restriction Sites: SgfI-MluI

ACCN: NM_011827

Insert Size: 240 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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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:	<ol style="list-style-type: none"> 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_011827.3</u> , <u>NP_035957.2</u>
RefSeq Size:	452 bp
RefSeq ORF:	240 bp
Locus ID:	23900
UniProt ID:	<u>Q9QUJ0</u>
Cytogenetics:	7 17.45 cM
Gene Summary:	<p>Transmembrane adapter protein which associates with KLRK1 to form an activation receptor KLRK1-HCST in lymphoid and myeloid cells; this receptor plays a major role in triggering cytotoxicity against target cells expressing cell surface ligands such as MHC class I chain-related MICA and MICB, and UL16-binding proteins (ULBPs); these ligands are up-regulated by stress conditions and pathological state such as viral infection and tumor transformation. Functions as docking site for PI3-kinase PIK3R1 and GRB2. Interaction of ULBPs with KLRK1-HCST triggers calcium mobilization and activation of the PIK3R1, MAP2K/ERK, and JAK2/STAT5 signaling pathways. Both PIK3R1 and GRB2 are required for full KLRK1-HCST-mediated activation and ultimate killing of target cells. In NK cells, KLRK1-HCST signaling directly induces cytotoxicity and enhances cytokine production initiated via DAP12/TYROBP-associated receptors. In T-cells, it provides primarily costimulation for TCR-induced signals. KLRK1-HCST receptor plays a role in immune surveillance against tumors and is required for cytolysis of tumors cells; indeed, melanoma cells that do not express KLRK1 ligands escape from immune surveillance mediated by NK cells.[UniProtKB/Swiss-Prot Function]</p>