

Product datasheet for **MR209928**

Hps4 (NM_138646) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hps4 (NM_138646) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hps4
Synonyms:	2010205O06Rik; AU040608; BLOC-3; C130020P05Rik; le; mKIAA1667
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR209928 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCACCACCCTCCCCAGAGACAAAGTCAGCAGCGTGGTGGAACTACTTCTCCTGTATGACGGTT
 CCAAGGTAAGGGAGAAGGAGACCAACCAGAGCTGGCATCTGCTACTTCTATCCGCCCCAGACCCTGTT
 AGACCAGCAGGAAGTCTGTGGCCAGCTTGCTGGAGTAGTGCCTGCCTGTGGACCTTTCTGGCACC
 CCGCCCATGCTCATCCGATGCGGAACCTCAAGTTTGCCATCAGGGCAGATGGGGACTACCTGTGGGCTC
 TGGGGTGTGGTGTGGAGATCTCTGATGCCAGCTGCAGGCAGTTTCTGGATCAGCTCATTGGATTTTTCA
 TTTCTACATGGGCCCTGTCTCCCTGGCCTACAAGAGCCATCCTCAGGAGGAGCTGAGCTTGCACTGGGAT
 ACCTCCATCACACAAGTCTCAGGAGCACCAGCGAATCGCACAGGATCTCAATGCCCTGTGGAACCTGG
 ACCGCACCAAAGTGGAGCCCTGCTGCTGCTGAAGGCAGCTCTCATCTTACAGACCTGCCAACGCTCACC
 TCATGTGTAGCTGGCTGCATCCTCTATAAAGGACTGATTGTGAATCCAGCTCCTGCCTCCCTCACT
 GCTAAGGTCTGCTTCATCAGACTGTACCTGCAGACCAGAGGCTGCCTGGAGCAGGAGCTGCCCCACAGG
 AAACAGGAGCAGCGTTGCCCCGGATGTGCAGATCACCTCTGTTTTCTGAGTGAGGAGGAAGCTGCCAG
 CCTCCACGAGTTCCAGTAGAGCATGAAACTCGACTCCAGGGAAGTTCAGTTCAATACCCTCCCTGGGAT
 CAAAGCAGCCCCACCCAGGCAGAAGATGCCTGGGCATCAGCTGCCATCCCGGAGCCCACGCCGATGATG
 GAGCATGTCCGAGTGGCAGCGGGGCAGATGAACGCTTGCTAGGCTTGAGCAGGAGTGTGCTGGGCCAC
 GGGACTGTGCACCACTGCCTGTGGCCAGGGCTCCGGCCTCAGCAGCAGGCTGCAGAAGGAGCTGTGTCTC
 TCCCGGGAGGAACTGGACTCGTCTGAAATGCACGTTTCTGAGGCTCAGGAAGCCTCCCACCTTTGCCTG
 CCCTGGGTGATCTGGAGACTCTCCACAGCAGCCACAGTGCCCCACTCTACCTGAAGACACAGCCATTTG
 CAGCTGCCTGCACCCCTTGCCCTTTGAGAGGCTCCCTGAGAGTGGAAGGCTAGGACAGCTCGCAGACCTG
 CCCCTACCAATGGCAAACCCAGGTTCTGGCACAGACCCTCTCCCAGCAGCATGCCTGTGGCACTTC
 CTCCCAGCATCCTGTGGGTGTAGAGCCAGTGTGGAGCCATACGGGAATGGAGCCAGGAGAGCCACTC
 AGCCCTGCCACGCAGTTCCTGCTCACCTGACTCTCCGGGCCAGCCCTCTGCAGACAGAACTGGCTTC
 AAGCCATCCCATCTGGACGCCACGCAGGGCTCGTGCCCATGAACCTCTACCCACAGTGTGAACGGAC
 TGGTGTGTCCCTGCTGGCCGAAGAGACTTTCTCAGCGACACTGCAGCCATCGAGGAGGTGTACCACAG
 CAGCCTGGCGTCGCTGAATGGGCTGGAAGTCCACCTGAAGGAGACGCTGCCAGAGACGAGGCTAGCCTC
 ACCAGCAGCACATACAACTTCCTTATTGACCGCATCCAGAGCGTGTCTCAGCCAACCTGCCCTAG
 TGAAGTGTCCCGAGGACCGGTTTCTGCAGGCGTCAACCTCATGCACTCCGACTTTGCCTGTGCTGCC
 TATGCTGTACGAGATGACCATCAGGAACGCTCCACAGCCGTGTACGCCTGCAGCAGCCAGCCAGGAG
 ACCTACTTCCAGCAGCTGGCACCCTGCCCCGAGCTCTGGCTTCCCAAACCTCAGGATTGCGCCTTCA
 GCCTCGCAGGCAAAGCCAAGCAGAAGCTGCTGAAGCACGGGTAAACCTGCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR209928 protein sequence
Red=Cloning site Green=Tags(s)

MATTTTPEPKSAAWNYFFLYDGSKVKGEGDPTRAGICYFYPPQTLLDQQELLCGQLAGVVRCLWDL SGT
 PPMLIRMRNLKFAIRADGDYLWALGCGVEISDASCRQFLDQLIGFFHFYMGPVSLAYKSHPQEELSLQWD
 TSITQVLRSTSESHRIFNALWNLDRTKVEPLLLLKAALILQTCQRSPHVLACGILYKGLIVNSQLLPSLT
 AKVLLHQTVPADQRLPGAGAAPQETGAALPPDVQITSVFLSEEEAASLHEFPVEHETRLQGSSVQYPPWD
 QSSTQAEDAWASAAIPEPTPHDGACPSGSGADERLPRLEQEACAGPTGLCTTACGQGSGLSSRLQKELCL
 SREELDSSEMHVSEAQAEFPPLPALGDLETLHSSHSAPTLPEDTAICSCSLHPCPLERLPESGRLGQLADL
 PLTNGQTQVPGTDPLPSSMPVALPPQHPVGVESVPEYNGAQESHASALPRSSRSPDSPGSPSADRTGF
 KPSPSGRHAGL VPMNLYTHSVNGLVLLAEETLLSDTAAIEEVYHSSLASLNGLEVHLKETLRDEASL
 TSSTYNFLHYDRIQSVLSANLPLVTAPQDRRFLQAVNLMHSDFALLPMLYEMTIRNASTAVYACSSPAQE
 TYFQQLAPTARSSGFNPQDCAFSLAGKAKQKLLKHGVNLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_138646

ORF Size: 2016 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.

RefSeq: [NM_138646.2](#), [NP_619587.2](#)

RefSeq Size: 2852 bp

RefSeq ORF: 2016 bp

Locus ID: 192232

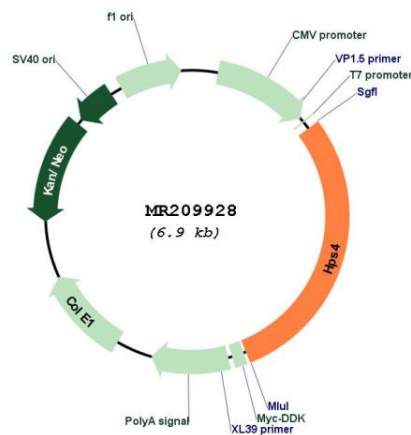
UniProt ID: [Q99KG7](#)

Cytogenetics: 5 54.69 cM

MW: 72.6 kDa

Gene Summary: Component of the BLOC-3 complex, a complex that acts as a guanine exchange factor (GEF) for RAB32 and RAB38, promotes the exchange of GDP to GTP, converting them from an inactive GDP-bound form into an active GTP-bound form. The BLOC-3 complex plays an important role in the control of melanin production and melanosome biogenesis and promotes the membrane localization of RAB32 and RAB38.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209928