

Product datasheet for **MG209928**

Hps4 (NM_138646) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hps4 (NM_138646) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hps4
Synonyms:	2010205O06Rik; AU040608; BLOC-3; C130020P05Rik; le; mKIAA1667
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>MG209928 representing NM_138646
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCCACCACCCTCCCCAGAGACAAAGTCAGCAGCGTGGTGGAACTACTTCTCCTGTATGACGGT
CCAAGGTAAGGGAGAAGGAGACCCAACCAGAGCTGGCATCTGCTACTTCTATCCGCCCCAGACCCTGTT
AGACCAGCAGGAAGTCTGTGGCCAGCTTGCTGGAGTAGTGCCTGCCTGTGGACCTTTCTGGCACC
CCGCCATGCTCATCCGTATGCGGAACCTCAAGTTTCCATCAGGGCAGATGGGGACTACCTGTGGGCTC
TGGGGTGTGGTGTGGAGATCTCTGATGCCAGCTGCAGGCAGTTTCTGGATCAGCTCATTGGATTTTTCA
TTTCTACATGGGCCCTGTCTCCCTGGCCTACAAGAGCCATCCTCAGGAGGAGCTGAGCTTGCAGTGGGAT
ACCTCCATCACACAAGTCTCAGGAGCACCAGCGAATCGCACAGGATCTCAATGCCCTGTGGAACCTGG
ACCGCACAAAGTGGAGCCCTGCTGCTGCTGAAGGCAGCTCTCATCTTACAGACCTGCCAACGCTCACC
TCATGTGTAGCTGGCTGCATCCTCTATAAAGGACTGATTGTGAATCCAGCTCCTGCCTCCCTCACT
GCTAAGGTCTGCTTCATCAGACTGTACCTGCAGACCAGAGGCTGCCTGGAGCAGGAGCTGCCCCACAGG
AAACAGGAGCAGCGTTGCCCCGGATGTGCAGATCACCTCTGTTTTCTGAGTGAGGAGGAAGCTGCCAG
CCTCCACGAGTCCCAGTAGAGCATGAAACTCGACTCCAGGGAAGTTCAGTTCAATACCCTCCCTGGGAT
CAAAGCAGCCCCACCCAGGCAGAAGATGCCTGGGCATCAGCTGCCATCCCGGAGCCCACGCCGATGATG
GAGCATGTCCGAGTGGCAGCGGGGCAGATGAACGCTTGCTAGGCTTGCAGGAGTGTGCTGGGCCAC
GGGACTGTGCACCCTGCCTGTGGCCAGGGCTCCGGCCTCAGCAGCAGGCTGCAGAAGGAGCTGTGTCTC
TCCCGGAGGAACTGGACTCGTCTGAAATGCACGTTTCTGAGGCTCAGGAAGCCTCCACCTTTGCCTG
CCCTGGGTGATCTGGAGACTCTCCACAGCAGCCACAGTGCCCCACTCTACCTGAAGACACAGCCATTG
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CCCTCACCAATGGCAAACCCAGGTTCTGGCACAGACCCTCTCCCAGCAGCATGCCTGTGGCACTTC
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CAGCCTGGCGTCGCTGAATGGGCTGGAAGTCCACCTGAAGGAGACGCTGCCAGAGACGAGGCTAGCCTC
ACCAGCAGCACATACAACTTCCTTATTGACCGCATCCAGAGCGTGTCTCAGCCAACCTGCCCTAG
TGACTGCTCCCCAGGACCGCGTTTCTGAGGCGTCAACCTCATGCACTCCGACTTTGCCTGTGCTGCC
TATGCTGTACGAGATGACCATCAGGAACGCTCCACAGCCGTGTACGCCTGCAGCAGCCAGCCAGGAG
ACCTACTTCCAGCAGCTGGCACCCACTGCCCGAGCTCTGGCTTCCCAAACCTCAGGATTGCGCCTTCA
GCCTCGCAGGCAAAGCCAAGCAGAAGCTGCTGAAGCACGGGTAAACCTGCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG209928 representing NM_138646
 Red=Cloning site Green=Tags(s)

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MATTTTPETKSAAWWNYFFLYDGSKVKGEGDPTRAGICYFYPPQTLLDQQELLCGQLAGVVRCLWDL SGT
PPMLIRMRNLKFAIRADGDYLWALGCGVEISDASCRQFLDQLIGFFHFYMGPVSLAYKSHPQEELSLQWD
TSITQVLRSTSESHRIFNALWNLDRTKVEPLLLLKAALILQTCQRSPHVLACGILYKGLIVNSQLLPSLT
AKVLLHQTVPADQRLPGAGAAPQETGAALPPDVQITSVFLSEEEAASLHEFPVEHETRLQGSSVQYPPWD
QSSPTQAEDAWASAAIPEPTPHDGACPSGSGADERLPRLEQECAGPTGLCTTACGQGSGLSSRLQKELCL
SREELDSSEMHVSEAQAEFPPLPALGDLETLHSSHSAPTLPEDTAICSLHPCPLERLPESGRLGQLADL
PLTNGQTQVPGTDPLPSSMPVALPPQHPVGVESVEPYNGAQESHASALPRSSRSPDSPGSPSADRTGF
KPSPSGRHAGL VPMNLYTHSVNGLVLSLLAEETLLSDTAAIEEVYHSSLASLNGLEVHLKETLPDEASL
TSSTYNFLHYDRIQSVLSANLPLVTAPQDRRFQAVNLMHSDFALLPMLYEMTIRNASTAVYACSSPAQE
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TRTRPLE - GFP Tag - V

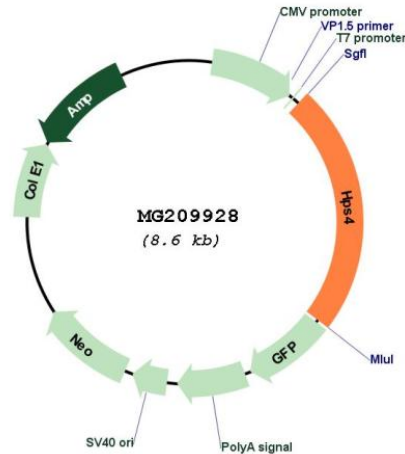
Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_138646

ORF Size: 2013 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: 2545 bp

RefSeq ORF: 2016 bp

Locus ID: 192232

UniProt ID: [Q99KG7](#)

Cytogenetics: 5 54.69 cM

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]