

## Product datasheet for **RC203084**

### hemoglobin subunit gamma 1 (HBG1) (NM\_000559) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	hemoglobin subunit gamma 1 (HBG1) (NM_000559) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	hemoglobin subunit gamma 1
Synonyms:	HBG-T2; HBGA; HBGR; HSGGL1; PRO2979
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203084 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGTCATTTACAGAGGAGGACAAGGCTACTATCACAAAGCCTGTGGGGCAAGGTGAATGTGGAAGATG  
CTGGAGGAGAAACCCTGGGAAGGCTCCTGGTTGTCTACCCATGGACCCAGAGGTTCTTTGACAGCTTTGG  
CAACCTGTCTCTGCCTCTGCCATCATGGGCAACCCCAAAGTCAAGGCACATGGCAAGAAGGTGCTGACT  
TCCTTGGGAGATGCCATAAAGCACCTGGATGATCTCAAGGGCACCTTTGCCAGCTGAGTGAAGTGCCT  
GTGACAAGCTGCATGTGGATCCTGAGAATTCAAGCTCCTGGGAAATGTGCTGGTACCCTTTTGGCAAT  
CCATTTTCGCAAAGAATTCACCCCTGAGGTGCAGGCTTCTGGCAGAAGATGGTACTGGAGTGGCCAGT  
GCCTGTCTCCAGATACCAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC203084 protein sequence Red=Cloning site Green=Tags(s)
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MGHFTTEEDKATITSLWGKYNVEDAGGETLGRLLVYYPWTRFFDSFGNLSASAIMGNPKVKAHGKLVLT  
SLGDAIKHLDDLKGTFAQLSELHCDKLHVDPENFKLLGNLVTVLAIHFGKEFTPEVQASWQKMTGTVAS  
ALSSRYH

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:	<a href="https://cdn.origene.com/chromatograms/mk6055_f04.zip">https://cdn.origene.com/chromatograms/mk6055_f04.zip</a>
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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_000559

ORF Size: 441 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\\_000559.3](#)

RefSeq Size: 584 bp

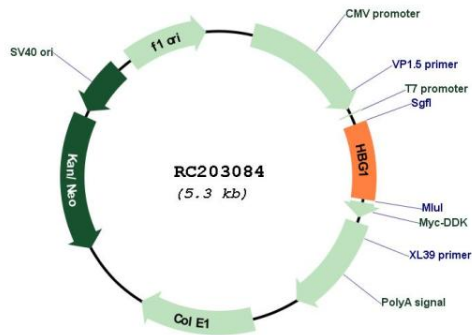
RefSeq ORF: 444 bp

Locus ID: 3047

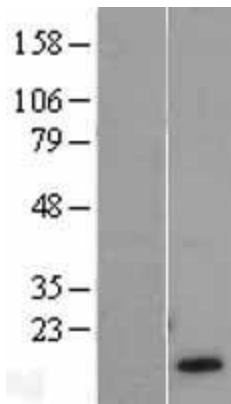
UniProt ID: [P69891](#)  
 Cytogenetics: 11p15.4  
 Domains: globin  
 MW: 16.1 kDa

**Gene Summary:** The gamma globin genes (HBG1 and HBG2) are normally expressed in the fetal liver, spleen and bone marrow. Two gamma chains together with two alpha chains constitute fetal hemoglobin (HbF) which is normally replaced by adult hemoglobin (HbA) at birth. In some beta-thalassemias and related conditions, gamma chain production continues into adulthood. The two types of gamma chains differ at residue 136 where glycine is found in the G-gamma product (HBG2) and alanine is found in the A-gamma product (HBG1). The former is predominant at birth. The order of the genes in the beta-globin cluster is: 5'-epsilon -- gamma-G -- gamma-A -- delta -- beta--3'. [provided by RefSeq, Jul 2008]

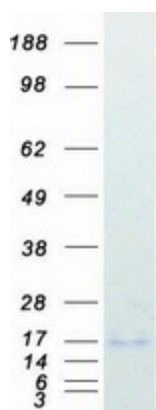
**Product images:**



Circular map for RC203084



Western blot validation of overexpression lysate (Cat# [LY400190]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203084 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HBG1 protein (Cat# [TP303084]). The protein was produced from HEK293T cells transfected with HBG1 cDNA clone (Cat# RC203084) using MegaTran 2.0 (Cat# [TT210002]).