

## Product datasheet for **RG209847**

### Hsp47 (SERPINH1) (NM\_001235) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hsp47 (SERPINH1) (NM_001235) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hsp47
Synonyms:	AsTP3; CBP1; CBP2; gp46; HSP47; OI10; PIG14; PPROM; RA-A47; SERPINH2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209847 representing NM_001235 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGCGCTCCCTCCTGCTTCTCAGCGCCTTCTGCCTCCTGGAGGCGGCCCTGGCCGCCGAGGTGAAGAAAC  
CTGCAGCCGAGCAGCTCCTGGCACTGCGGAGAAGTTGAGCCCCAAGGCGGCCACGCTTGCCGAGCGCAG  
CGCCGGCTGGCCTTTCAGCTTGTACCAGGCCATGGCCAAGGACCAGGCAGTGGAGAATCCTGGTGTCA  
CCCGTGGTGGCTCGTCGCTGGGGCTCGTGTGCTGGGCGGAAGGCGACCACGGCGTCCGAGGCCA  
AGGCAGTGTGAGCGCCGAGCAGCTGCGCGACGAGGAGGTGCACGCCGGCTGGGCGAGCTGCTGCGCTC  
ACTCAGCAACTCCACGGCGCGCAACGTGACCTGGAAGCTGGGCGAGCCGACTGTACGGACCCAGCTCAGTG  
AGCTTCGCTGATGACTTCGTGCGCAGCAGCAAGCAGCACTACAACCTGCGAGCACTCCAAGATCAACTTCC  
GCGACAAGCGCAGCGCGCTGCAGTCCATCAACGAGTGGGCGCGCAGACCACCGACGGCAAGCTGCCCGA  
GGTCACCAAGGACGTGGAGCGCACGGACGGCGCCCTGTTAGTCAACGCCATGTTCTTCAAGCCACTGG  
GATGAGAAATCCACCACAAGATGGTGGACAACCGTGGCTTCATGGTACTCGGTCTATAACCGTGGGTG  
TCATGATGATGCACCGGACAGGCCTCTACAACCTACTACGACGACGAGAAGGAAAAGCTGCAAATCGTGGA  
GATGCCCTGGCCACAAGCTCTCCAGCCTCATCATCTTCATGCCCATCACGTGGAGCCTCTCGAGCGC  
CTTGAAAAGCTGCTAACCAAGAGCAGCTGAAGATCTGGATGGGAAGATGCAGAAGAAGGCTGTTGCCA  
TCTCCTTGCCCAAGGGTGTGGTGGAGGTGACCCATGACCTGCAGAAACACCTGGCTGGGCTGGGCTGAC  
TGAGGCCATTGACAAGAACAAGGCCGACTTGTACGCATGTCAGGCAAGAAGACCTGTACTGGCCAGC  
GTGTTCCACGCCACCGCCTTTGAGTTGGACACAGATGGCAACCCCTTTGACCAGGACATCTACGGGCGG  
AGGAGCTGCGCAGCCCCAAGCTGTTCTACGCCGACCCCTTTCATCTTCTAGTGCGGGACACCCAAAG  
CGGCTCCCTGCTATTATTGGGCGCCTGGTCCGGCCTAAGGGTGACAAGATGCGAGACGAGTTA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG209847 representing NM\_001235  
 Red=Cloning site Green=Tags(s)

MRSLLLLSAFCLLEAALAAEVKKPAAAAAPGTAEKLSPKAATLAERSAGLAFSLYQAMAKDQAVENILVS  
 PVVVASSLGLVSLGGKATTASQAKAVLSAEQLRDEEVHAGLGELLRSLNSTARNVTWKLGSRLYGPSSV  
 SFADDFVRSSKQHYNCEHSKINFRDKRSALQSIWAAQTDDGKLEVTKDVERTDGALLVNAAMFKPHW  
 DEKFHHKMVDNRGFMVTRSYTVGVMMHRTGLYNYDDDEKEKLQIVEMPLAHKLSLIIFMPHHVEPLER  
 LEKLLTKEQLKIWMGKMQKAVATSLPKGVVEVTHDLQKHLAGLGLTEAIDKNKADLSRMSGKLDLYLAS  
 VFHATAFELDTDGNPFDQDIYGREELRSPKLFYADHPFIFLVRDTQSGSLLFIGRLVRPKGDKMRDEL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001235

**ORF Size:** 1254 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\\_001235.2](#), [NP\\_001226.2](#)

**RefSeq Size:** 2208 bp

**RefSeq ORF:** 1257 bp

**Locus ID:** 871

**UniProt ID:** [P50454](#)

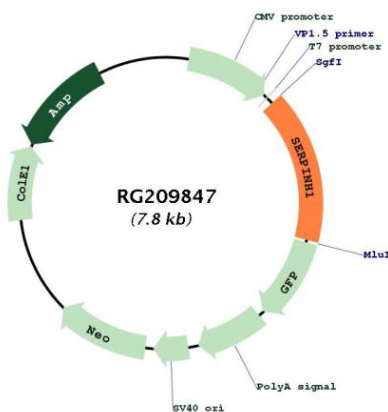
**Cytogenetics:** 11q13.5

**Domains:** SERPIN

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes a member of the serpin superfamily of serine proteinase inhibitors. The encoded protein is localized to the endoplasmic reticulum and plays a role in collagen biosynthesis as a collagen-specific molecular chaperone. Autoantibodies to the encoded protein have been found in patients with rheumatoid arthritis. Expression of this gene may be a marker for cancer, and nucleotide polymorphisms in this gene may be associated with preterm birth caused by preterm premature rupture of membranes. Alternatively spliced transcript variants have been observed for this gene, and a pseudogene of this gene is located on the short arm of chromosome 9. [provided by RefSeq, May 2011]

## Product images:



Circular map for RG209847