

## Product datasheet for **RC212998**

### Haspin (GSG2) (NM\_031965) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Haspin (GSG2) (NM_031965) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Haspin
Synonyms:	GSG2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC212998 representing NM\_031965  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGCTTCGCTCCCGGGACCTGGGAGCCGGCTTTTCCGCACATATGGGGCTGCGGACGGCAGGAGAC  
 AGCGGGCGGCCGGCCGGGAAGCCGCGCAGTGGTTCCCGCCGACAGGACCGGAGGCGTTTCTCAACAGCAG  
 CGGCAGCAGCGACGCCAGCATCGCGCACCCCTCGCAGTCCGACGATCCTGACGATCCCGACGACCCCGAC  
 TTCCCGCGCAGCCCGGTGAGCGGCGGGAGGCGTCCCGGCGGCCGAGTGCCCAAGGACCGGCCAGCC  
 TGACCGTGACCCCAAAGCGCTGGAAGCTGCGAGCTCGCCAAAGCCTAACCGTGACCCCAAGACGCTGGG  
 GCTGCGAGCTCGGCCCGCAGAAGTGCAGCACACCCCTGCGGCCCGCTCCGACTTCCGCCCTTCCCAGC  
 CGCGACTCCGGCCGCTCAGCCCGACCTCAGCGTGTGCGGCCAGCCAGGGACGGCGACGAGCTGGGCA  
 TCAGTGCCTCCCTGTTCACTCTCTGCCCTCGCCCTGCCCGGGTCCCCAACGCCAAGGGACAGTGTCT  
 CTCGATCGGCACCTCCGCTGTCTGGTTGACGCTCAGCCGTCCCGAGCGGCCTCCACCTCCAGAAGTC  
 TCCTTGACCGAGCATCTCTCCCTGCTCCAGGAGGAAGCGACAGGAGGAGCAAGGACACCAGGATGG  
 TCCACCAAACCCGCGCCAGCCTCAGGTCAGTTCTCTTTGGCCTTATGAACTCAGGAACCCCTGAGGATTC  
 TGAGTTTCGGGCAGATGGGAAGAATATGAGAGAGTCTGCTGTAAAAGGAAAAGTGGTGGTGGGAAATGGA  
 CCAGAGGGTCCAGGTCTGTCAAGCACAGGCAAGAGGAGGGCCACAGGCCAGGACTCTTGTCAAGAGAGAG  
 GGCTTCAAGAGGGCGTCCGGAGAGAGCATCAGGAGGCCAGTGTCCCAAGGGCCGATTGTGCCAAGGGG  
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 CTCCATCCCACCGCTTTAAAAGGGCCAAAAGCTGGGAAAAGATTGTTCCCCACCCAGGACCTGACTC  
 CTTTACAGAATGTCTGCTTTTGGACCAAACAGGGCTTCCTTCACTTTCCACAAGAAGAAAATTTGTGAC  
 TGATGTGTCAGAGGTCTGCAGCATCTATACCCTGACACTTCTCTCTCTGGATCCCTCTATCAGAAATGT  
 TCAAACCGGCTGTGATGAACAGAAAGTGGTCTCCGCTCTTGGCACTCCTCTCTATGATTTTGC  
 TAAGCCCTTAAACACTCTAAGTATTTCAAACAAAAGGCATCTGATGCTGAAAAGGTTTATGGGAATG  
 CAGTCAGAAGGGTCTGTCCCCTTTAGCCATTGCCTTCCACAGAAAACTGCAACGCTGTGAGAAGATT  
 GGGGAAGGGTGTGGCGAAGTGTTCAAACAATTGCTGATCACACACCCGTAGCCATAAAAAATCATTG  
 CTATTGAAGGACCAGATTTAGTCAATGGATCCCATCAGAAAACCTTTGAGGAAATCCTGCCAGAGATCAT  
 CATCTCCAAGAGTTGAGCCTCTATCCGGTGAAGTGTGCAACCGCACAGAAGGCTTTATCGGGCTGAAC  
 TCAGTGCCTGTGTCAGGGATTTACCCTCCCTGCTCCTCAAAGCCTGGGATCACTATAATTCAACCA  
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 TGGAGGGATTGACTTAGAGCAAATGCGAACCAAGTTGTCTTCTTGGCTACTGCAAAGAGCATTCTACAC  
 CAGCTCACAGCCTCCCTCGCAGTGGCAGAGGCATCACTGCGCTTTGAGCACCGAGACTTACACTGGGGGA  
 ACGTGCTCTTAAAGAAAACCGCCTCAAAAACTCCACTACACCTCAATGGGAAGAGCAGCACTATCCC  
 CAGCTGTGGGTTGCAAGTGAAGTCACTTACTACACCTGTGCGCTTGGAACGGGATGGGATTGTGGTT  
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 TCATGAAGAAGGAGAATAACAACCGTGGGGTGAATATCACCTTATAGTAATGTGCTCTGGTTACATTA  
 CCTGACAGACAAGATGCTGAAACAAATGACCTTCAAGACTAAATGTAACACTCCTGCCATGAAGCAAATT  
 AAGAGAAAAATCCAGGATTTCCACAGGACAATGCTGAACCTCAGCTGCTGCACTGACTTGTCTGCCAGC  
 ACAGTCTGTTAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC212998 representing NM\_031965  
Red=Cloning site Green=Tags(s)

MAASLPGPSRLFRITYGAADGRRQRPGREAAQWFPPQDRRRFFNSSGSSDASIGDPSQSDDPDDPDDPD  
FPGSPVRRRRRRPGGRVPKDRPSLTVTPKRWKLRARPSLTVTPRRLGLRARPPQKCSTPCGPLRLPPFPS  
RDSGRLSPDLVCGQPRDGDDELGISASLFSLASPCPGSPTPRDSVISIGTSACLVAASAVPSGLHLPEV  
SLDRASLPCSQEEATGGAKDTRMVHQTRASLRSVLFGLMNSGTPEDSEFRADGKNMRESCCKRKL VVGNG  
PEGPGLSSTGKRRATGQDSCQERLQEAVRREHQEASVPKGRIVPRGIDRLERTRSSRKSKHQEATETSL  
LHSHRFKKGQKLGKDSFPTQDLTPLQNVCFWTKTRASFHKKKIIVTDVSEVCSIYTTATSLSGSLLSEC  
SNRPVMNRTSGAPSSWHSSSMYLLSPLNTLSISNKKASDAEKVYGECSQKGPVPPFSHCLPTEKLQRCEKI  
GEGVFGEVFTIADHTPVAIKIIAIEGPDLVNGSHQKTFEEILPEIIISKELSLLSGEVCNRTEGFIGN  
SVHCVQGSYPPLLLKAWDHYNSTKGSANDRPDFFKDDQLFIVLEFEFGGIDLEQMRTKLSSLATAKSILH  
QLTASLAVAEASLRFHRDLHWGNVLLKKTSLKKLHYTLNGKSSSTIPSCGLQVSIIDYTL SRLERDGIVV  
FCDVSMDEDLFTGDGDYQFDIYRLMKKENNRWGEYHPYSNVLWLHYLTDKMLKQMTFKTKCNTPAMKQI  
KRKIQEFHRTMLNFSATDLLCQHSLFK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg4089\\_h09.zip](https://cdn.origene.com/chromatograms/mg4089_h09.zip)

**Restriction Sites:** Sgfl-Mlul

## Cloning Scheme:



ACCN: NM\_031965

ORF Size: 2394 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\\_031965.2](#), [NP\\_114171.2](#)

**RefSeq Size:** 2797 bp

**RefSeq ORF:** 2397 bp

**Locus ID:** 83903

**UniProt ID:** [Q8TF76](#)

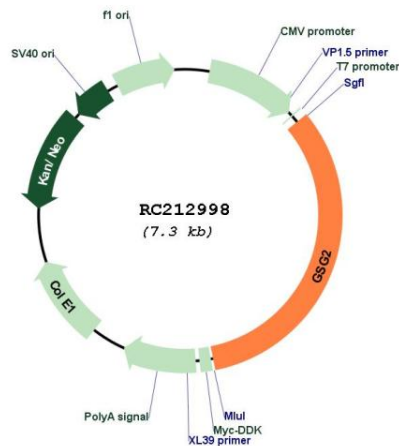
**Cytogenetics:** 17p13.2

**Protein Families:** Druggable Genome, Protein Kinase

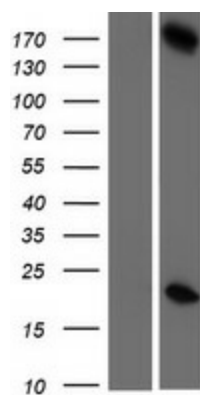
**MW:** 88.3 kDa

**Gene Summary:** Serine/threonine-protein kinase that phosphorylates histone H3 at 'Thr-3' (H3T3ph) during mitosis. May act through H3T3ph to both position and modulate activation of AURKB and other components of the chromosomal passenger complex (CPC) at centromeres to ensure proper chromatid cohesion, metaphase alignment and normal progression through the cell cycle.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RC212998



Western blot validation of overexpression lysate (Cat# [LY410416]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212998 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).