

## Product datasheet for **SC315295**

### Jagged 2 (JAG2) (NM\_002226) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Jagged 2 (JAG2) (NM_002226) Human Untagged Clone
Tag:	Tag Free
Symbol:	Jagged 2
Synonyms:	HJ2; SER2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_002226 edited  
 ATGCGGGCGCAGGGCCGGGGCGCCTTCCCCGGCGCTGCTGCTGCTGGCGCTCTGG  
 GTGCAGGCGGCGCGGCCCATGGGCTATTTTCGAGCTGCAGCTGAGCGCGCTGCGGAACGTG  
 AACGGGGAGCTGCTGAGCGGCGCCTGCTGTGACGGCGACGGCCGACAACGCGCGCGGGG  
 GGCTGCGGCCACGACGAGTGCACACGTACGTGCGCGTGTGCCTTAAGGAGTACCAGGCC  
 AAGGTGACGCCCACGGGGCCCTGCAGCTACGGCCACGGCGCCACGCCCGTCTGGGCGGC  
 AACTCCTTCTACCTGCCGCCGGCGGGCGCTGCGGGGGACCGAGCGGGCGCGGGCCCGG  
 GCCGGCGGCGACCAGGACCCGGGCTCGTGCATCCCCTTCCAGTTCGCCTGGCCGCGC  
 TCCTTTACCTCATCGTGGAGGCTGGGACTGGGACAACGATACCACCCGAATGAGGAG  
 CTGCTGATCGAGCGAGTGTGCGATGCCGGCATGATCAACCCGAGGACCGCTGGAAGAGC  
 CTGCACCTCAGCGGCCACGTGGCGCACCTGGAGCTGCAGATCCGCGTGCCTGCGACGAG  
 AACTACTACAGCGCCACTTGCAACAAGTTCTGCCGGCCCCGCAACGACTTTTTCGGCCAC  
 TACACCTGCGACCAAGTACGGCAACAAGGCTGCATGGACGGCTGGATGGGCAAGGAGTGC  
 AAGGAAGCTGTGTAAACAAGGGTGAATTTGCTCCACGGGGATGCACCGTGCCTGGG  
 GAGTGCAGGTGCAGCTACGGCTGGCAAGGGAGGTTCTGCGATGAGTGTGTCCCCTACCC  
 GGCTGCGTGCATGGCAGTTGTGTGGAGCCCTGGCAGTGCACCTGTGAGACCAACTGGGGC  
 GGCCTGCTCTGTGACAAAGACCTGAACACTGTGGCAGCCACCACCCCTGCACCAACGGA  
 GGCACGTGCATCAACGCCGAGCCTGACCAGTACCGCTGCACCTGCCCTGACGGCTACTCG  
 GGCAGAACTGTGAGAAGGCTGAGCAGCCTGCACCTCCAACCCGTGTGCCAACGGGGGGC  
 TCTTGCCATGAGGTGCCGTCCGGCTTCAATGCCACTGCCATCGGGCTGGAGCGGGCCC  
 ACCTGTGCCCTTGACATCGATGAGTGTGCTTCAACCCGTGTGCGGCCGGTGGCACCTGT  
 GTGGACCAAGTGGACGGCTTTGAGTGCATCTGCCCGAGCAGTGGGTGGGGGCCACCTGC  
 CAGCTGGACGCCAATGAGTGTGAAGGGAAGCCATGCCTTAACGCTTTTTCTTGCAAAAAC  
 CTGATTGGCGGCTATTACTGTGATTGCATCCCGGGCTGGAAGGGCATCAACTGCCATATC  
 AACGTCAACGACTGTCGCGGGCAGTGTGAGCATGGGGCACCTGCAAGGACCTGGTGAAC  
 GGGTACCAGTGTGTGCCCCACGGGCTTCGGAGGCCGGCATTGCGAGCTGGAACGAGAC  
 AAGTGTGCCAGCAGCCCCTGCCACAGCGCGGCCCTCTGCGAGGACCTGGCCGACGGCTTC



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CACTGCCACTGCCCCAGGGCTTCTCCGGCCTCTCTGTGAGGTGGATGTCGACCTTTGT  
 GAGCCAAGCCCCTGCCGGAACGGCGCTCGCTGCTATAACCTGGAGGGTACTATTACTGC  
 GCCTGCCCTGATGACTTTGGTGGCAAGAACTGCTCCGTGCCCGCGAGCCGTGCCCTGGC  
 GGGGCTGCAGAGTGATCGATGGCTGCGGGTACAGCGGGGGCTGGGATGCCTGGCACA  
 GCAGCCTCCGGCGTGTGTGGCCCCATGGACGCTGCGTCAGCCAGCCAGGGGGCAACTTT  
 TCCTGCATCTGTGACAGTGGCTTTACTGGCACCTACTGCCATGAGAACATTGACGACTGC  
 CTGGGCCAGCCCTGCCGCAATGGGGGCACATGCATCGATGAGGTGGACGCCTTCCGCTGC  
 TTCTGCCCCAGCGCTGGGAGGGCGAGCTCTGCGACACCAATCCAACGACTGCCTTCCC  
 GATCCCTGCCACAGCCGCGGGCCGCTGCTACGACCTGGTCAATGACTTCTACTGTGCGTGC  
 GACGACGGCTGGAAGGGCAAGACCTGCCACTCACGCGAGTTCCAGTGCATGCCTACACC  
 TGCAGCAACGGTGGCACCTGCTACGACAGCGGGACACCTTCCGCTGCGCCTGCCCCCCC  
 GGCTGGAAGGGCAGCACCTGCGCCGTGCGCAAGAACAGCAGCTGCCTGCCAACCCCTGT  
 GTGAATGGTGGCACCTGCGTGGCAGCGGGGCTCCTTCTCTGCATCTGCCGGGACGGC  
 TGGGAGGGTCTACTTGCCTACAATACCAACGACTGCAACCCCTGCCTTGTACAAT  
 GGTGGCATCTGTGTTGACGGCGTCAACTGGTTCGCTGCGAGTGTGCACCTGGCTTCGCG  
 GGGCCTGACTGCCGCATCAACATCGACGAGTGCCAGTCCCTCGCCCTGTGCCTACGGGGCC  
 ACGTGTGTGGATGAGATCAACGGGTATCGCTGTAGCTGCCACCCGCGCCGAGCCGGCCCC  
 CGGTGCCAGGAAGTATCGGGTTCGGGAGATCCTGCTGGTCCCAGGGGACTCCGTTCCCA  
 CACGGAAGCTCCTGGGTGGAAGACTGCAACAGCTGCCGCTGCCTGGATGGCCGCCGTGAC  
 TGCAGCAAGGTGTGGTGGGATGGAAGCCTTGTCTGCTGGCCGGCCAGCCCGAGGGCCCTG  
 AGCGCCAGTGCCCACTGGGGCAAAGGTGCCTGGAGAAGGCCCAAGCCAGTGTCTGCGA  
 CCACCCCTGTGAGGCTGGGGGAGTGGCGCGAGAAGAGCCACCAGCACCCTGCCTGAC  
 CCACGCTCCGGCCACCTGGACAATAACTGTCCCGCCTCACCTTGCAATTTCAACCGTAC  
 CAGTGCCCCCAGGCACCAACGGTGGGCGCATTGTCCGGGATCCGCTCCCTGCCAGCC  
 ACAAGGGCTGTGGCACGGGACCCCTGCTGGTGTGCTTTGCGACCGGGCGTCTCGGGG  
 GCCAGTGCCGTGGAGGTGGCCGTCTCTCAGCCCTGCCAGGGACCTGCCTGACAGCAGC  
 CTGATCCAGGGCGCGCCACGCCATCGTGGCCGCCATCACCCAGCGGGGGAACAGCTCA  
 CTGCTCCTGGCTGTACCCGAGGTCAAGGTGGAGACGGTGTACGGGGGCTCTTCCACA  
 GGTCTGCTGGTGCCTGTGCTGTGTGGTGCCTTACGCGTGTGTGGCTGGCGTGCCTGGT  
 CTGTGCGTGTGGTGGACACGCAAGCGCAGGAAAGAGCGGGAGAGGAGCCGGCTGCCGCG  
 GAGGAGAGCGCCAACAACAGTGGGCCCGCTCAACCCATCCGCAACCCCATCGAGCGG  
 CCGGGGGCCACAAGGAGTGTCTACAGTGAAGAATTACGCCCGCCGCCGCGCAGG  
 GCGGACGAGGCGCTGCCCGGGCCGGCCACCGCGCCGTACGGGAGGATGAGGAGGAC  
 GAGGATCTGGGCCGCGGTGAGGAGGACTCCCTGGAGGCGGAGAAGTTCTCTCACACAAA  
 TTCACCAAAGATCCTGGCCGCTCGCCGGGGAGCCGGCCACTGGGCCTCAGGCCCAAAA  
 GTGGACAACCGCGCGGTGAGGAGCATCAATGAGGCCCGCTACGCCGGAAGGAGTAGGGG  
 CGGCTGCCAGCTGGGCCGGGACCCAGGGCCCTCGGTGGGAGCCATGCCGTCTGCCGGACC  
 CGGAGGCCGAGGCCATGTGCATAGTTTCTTTATTTTGTGTAACCAAAACCAAAAAACAA  
 AAACCAAAATGTTTATTTTCTACGTTTCTTTAACCTTGTATAAATTATTCAGTAACCTGCA  
 GGCTGAAAACAATGGAGTATTCTCGGATAGTTGCTATTTTTGTAAGTTTCCGTGCGTGG  
 CACTCGCTGTATGAAAGGAGAGAGCAAAGGGTGTCTGCGTCGTCACCAAATCGTAGCGTT  
 TGTACCAGAGGTTGTGCACTGTTACAGAATCTTCTTTTATTCTCACTCGGGTTTCT  
 CTGTGGCTCCAGGCCAAAGTGCCGGTGAGACCCATGGCTGTGTTGGTGTGGCCATGGCT  
 GTTGGTGGGACCCGTGGCTGATGGTGTGGCCTGTGGCTGTGGTGGGACTCGTGGCTGTC  
 AATGGGACCTGTGGCTGTGGTGGGACCTACGGTGGTGGTGGGACCCGTTATTGATG  
 TGGCCCTGGCTGCCGGCACGGCCCGTGGCTGTTGACGCACCTGTGGTGTAGTGGGGCC  
 TGAGGTATCGGGTGGCCAAAGCCGGCAGGTCAACCTCGCGCTTGTGGCCAGTCCAC  
 CCTGCCTGCCGTCTGTGCTTCTCTGCCCAGAACGCCCGCTCCAGCGATCTCTCCACTG  
 TGCTTTCAGAAGTGCCCTTCTGCTGCGCAGTTCTCCATCTGGGACGGCGGCAGTATT  
 GAAGCTCGTGACAAGTGCCCTTACACAGACCCCTCGCAACTGTCCACGCGTGCCGTGGCA  
 CCAGGGCGTGGCCACCTGCCGGCCCCGGCCGCCCTCCTCGTGAAGTGCATTTTTGTAA  
 ATGTGTACATATTAAGGAAGCACTCTGTATATTTGATTGAAAAAAAAAAAAAAAAAAAA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002226 unedited  
 NGGGGTCGGCTTTTGTATACGACTACTATAGGGCGGCCGCGATTCTGCGGGCGCAGGGC  
 CGGGGGCGCCTTCCCCGGCGGCTGCTGCTGCTGCTGGCGCTCTGGGTGCAGGGCGCGCG  
 CCCATGGGCTATTTTCGAGCTGCAGCTGAGCGCGCTGCGGAACGTGAACGGGGAGCTGCTG  
 AGCGGGCCTGCTGTGACGGCGACGGCCGGAACCGCGCGGGGGGCTGCGGCCACGAC  
 GAGTGGACACGTACGTGCGCGTGTGCCTTAAGGAGTACCAGGCCAAGGTGACGCCACG  
 GGGCCCTGCAGCTACGGCCACGGCGCCACGCCCGTGTGGCGGCAACTCCTTCTACCTG  
 CGCCCGCGGGCGCTGCGGGGGACCGAGCGCGGGCGGGGCCCGGGCCGCGCGGACGAG  
 GACCCGGGCTCGTCGTATCCCCCTTCCAGTTCGCCTGGCCGCGCTCCTTTACCCCTCATC  
 GTGGAGGCTGGGACTGGGACAACGATACCACCCGAATGAGGAGCTGCTGATCGAGCGA  
 GTGTGCGATGCCGGCATGATCAACCCGGAGGACCCTGGAAGAGCCTGCCTTACAGCGC  
 CACGTGGCGCACCTGGAGCTGCAGATCCGCGTGCCTGCGACGAGAACTACTACAGCGCC  
 ACTTTGCACAAGTTCTGCCGGCCCGCAACGACTTNTTCGGCCACTACACCTGCGACCAG  
 TACGGCAAACAGGGCCTGCATGGACCGCTGGATGGCAANGAGTGCANGGAAGCTGTGTG  
 TAAACAGGGTGTAAATTGCTNACGGGGATGCACCGTGCCTGGGGAGTGCNAGTGCACCT  
 ACCGCTGGCAAGGNAGTNCATGAGTGTGTCCCCTACCCCGCTGCGTGCATGGCA  
 ATTGTTTGGAGCA

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002226 unedited  
 CCCCATCGGGNNGATGGCAACTTGCCAGNCCAGNAAAGCACTGGGGNAGGGTCACAGGN  
 ATGCCACCCGGGATCTGTTTCAGGAAACAGCTATGACCCGCGCCGCAATCTAGAGTCGAGT  
 TTTTTTTTTTTTTTTTTTCAATCAAATATACAGAGTGCTTCTTTAATATGTACACATT  
 TACAAAATGCACTTTCACGAGGAGGGGCGGCCGGGGCCGGCAGGTGGGCAGCGCCTGGT  
 GCCACGGCACGCGTGGACAGTTGCGAGGGGTCTGTGTGAAGGCACTTGTACAGGCTTCA  
 ATACTGCCCGCTCCCAGGATGGGAGAACTGCGCAGCAGGAAGGGCACTTCTGAAAGCAC  
 AGTGGAGAGATCGCTGGAGCGGGCTTCTGGGCAGGAGGAACACAGACGGCAGGCAGGG  
 TGGACTGGCCAGCAAGCGCGAGTTGACCTGCCGCGCTTGGGCCACGCCGATGACCTCAG  
 GCCCACTAACAACCACAGGTGCGTCAACAGCCACGGGCGCTGCCGGCAGCCAGGCCAC  
 ATCAATAACCAGGTCACCCAGCACCGTAGGTCCCACCGACAGCCACAGGTCCCATTG  
 ACAGCCACGAGTCCCACCGACAGCCACAGGCCACACCATCAGCCACGGGTCCCACCAACA  
 GCCATGGGCCACACCAACACAGCCATGGGTCTCACCGGCACTTTGGCCTGNAGCCACAGA  
 GAAACCCGAGTGAAGAATAAANGNNAGATTCTGTAACAGTGCACAACCTNCTGGTAAACA  
 AACGCTACGATTTGNTGACCACGCAGACACCTTTGCTCTCTCCTTNCATACANCGAGT  
 GCCACGCCACGAAACTTACAAAATAAGCACTATCCCAGGATACTCCATTGTTTTTCAGG  
 CTGACAGTTACTTGAATATTTATACAAGTTAAGAN

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_002226

**Insert Size:**

4700 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:**

There is 1 nucleotide difference between the OriGene clone and the NCBI reference ORF. These result in the substitution of 1 aa and insertion of 1 aa.

**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\\_002226.3](#), [NP\\_002217.3](#)

**RefSeq Size:** 5077 bp

**RefSeq ORF:** 3717 bp

**Locus ID:** 3714

**UniProt ID:** [Q9Y219](#)

**Cytogenetics:** 14q32.33

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Notch signaling pathway

**Gene Summary:** The Notch signaling pathway is an intercellular signaling mechanism that is essential for proper embryonic development. Members of the Notch gene family encode transmembrane receptors that are critical for various cell fate decisions. The protein encoded by this gene is one of several ligands that activate Notch and related receptors. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]  
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (a).