

## Product datasheet for **SC122723**

### Oligodendrocyte Specific Protein (CLDN11) (NM\_005602) Human Untagged Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Oligodendrocyte Specific Protein (CLDN11) (NM_005602) Human Untagged Clone |
| Tag:                      | Tag Free   |
| Symbol:                   | Oligodendrocyte Specific Protein   |
| Synonyms:                 | HLD22; OSP; OTM  |
| Mammalian Cell Selection: | None   |
| Vector:                   | <u><a href="#">pCMV6-XL5</a></u>   |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |



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**Fully Sequenced ORF:**

>OriGene sequence for NM\_005602 edited  
 GTCCCCGCGTGCGCCCTTCGCCGCTGAGCTCGCAGCCTCCGGCGCCACCTCCACCTCC  
 AGTGTCCCAGCCTCGGGCCGTCGCCCTCCAGCGGCTCGCGAGCGTGGGAGACGTACCTGGG  
 CAGGCACTGTCCAGCCCAGGCCAGGCACAGCCGTGAGGGGCGAGGCACGGGGACATCCT  
 GGCGGCCACCATGGTGGCCACGTGCCTGCAGGTGGTGGGCTTCGTACAGACTTCGTGGG  
 CTGGATCGGGGTATCGTGACCACCTCCACCAATGACTGGGTGGTACCTGCGGCTACAC  
 CATCCCCACCTGCCGCAAGCTGGATGAGCTGGGCTCCAAGGGGCTGTGGGCCGACTGCGT  
 CATGGCCACGGGGCTGTACCACTGCAAGCCCTGGTGGACATCCTCATCCTGCCGGGCTA  
 CGTGACAGCCTGCCGCGCCCTGATGATTGCTGCCTCGGTCTGGGTCTGCCGGCCATTTT  
 ACTGCTGCTGACTGTTCTTCCCTGCATCCGGATGGGCCAGGAGCCCGGTGTGGTAAGTA  
 CAGGGGGGCCAGCTGGCTGGTGTGTTTGGCTCATTCTGCTGGCTCTCTGCCCTTGTTC  
 CACCATCTGGTCCCTGTGTGCCCCACCGTGAGACCACCATCGTACGCTTTGGTACTC  
 CCTGTATGCAGGCTGGATTGGTGTGTGCTGTGCCTCGTGGTGGCTGTGCATCCTCTG  
 CTGCGCTGGAGATGCCAGGCCCTTGGTAAAACCGTTTCTACTACACTGCGGGCTAG  
 CTCCCCGACTCATGCGAAGAGTGCCACGTATAAGAGGGCTGCCCGGCTGCCACAGAGG  
 TGCTGTAGATGTGGGCCAGGGCCCTAGGTTTGTCTCGTACAGTGTGGGGAAGCCATT  
 CCTCTGCCAGGCTCTAAAGCCAAAGGTCTAGAAAAGCATCCTGTCTGGCATTGTTGATG  
 TAACTTCTCCCCATTTCCCCATCTTTTGGTTGCCTTAAAAGAAATCTCTAGCTCAGAT  
 AATGCCAGACATTTTTTCCCTTGGTGTGGCCCTATTAGCTCTTTTCTGGGCATTCT  
 TCTGCTGTTTATAAAAATATATATATATATTTTGTTCCTTAAATTTCAAATGTTTTG  
 CAAACATCACTGAGTTAGGTGGGGTGGGAAGAGAAATACAAGATACTTTTTTTTTTTT  
 TTTTTTAAATAGGGCCTCACTCTGTTGCTCAGGCTGGAGTGCGGTGGTGTGATCTCGCT  
 CATGTAGCCTCAACCTCCCCGGCTCAAGTGATCCTCCTGCCTCAGCCTCCAAGTAGCTG  
 GGACTACAGGCGTCACTACTACACCCAGCTAATTTTTAAGTTTTTTATAGAGATGAGGG  
 CTCCCTATGTTGCCAGGTTGGTCTCGAACTCCTGGACTCAAAGTATCCTCCCGCCTCGG  
 CCTCCCAAAGTGTGGGATTATAGGAGTGAGCCACCACACCAGCCAAGATGCTTTTCAA  
 CTGATACAGATGACAATGGGAGCCTCATAAAGATGGCTTTTGTTCCTTCCCTTCAAGGTC  
 ATTTACTTGTACGAGACAGAAAAGATAGCATTGGGGACATGGGATGGGGGAGGGAGGGC  
 AATAGTGAACGAACTTTCCATGGGAACTTTCCCTTTTGAAGTTGAGGGCCAGGGGTA  
 GGGATATTTTTAGTTTGTGATTTTACATTTATCTGTACATACTTTTCAAGATTGATCA  
 TTTTTATAACCATGGTTTTCTGAAATCCTCAATTCATCAATATGAAGGAAATGAACCAC  
 ATAGACTTTATGCAATAAATAACAGTGCAAGTGAGTATAACTCTAACTGATGTTCCACAA  
 AACATTTTTGATTTACAGTTTGTATGATGTAGTTTTTAATCGTACATTTTCATATGCTTC  
 AAATAACACATTTTTAAAGCTTTCCCCACTTTTCTCTATTTGTATTGTTAGCCATC  
 TTGAAGTGATGTTGTTTAAACATAAATTGTACTGTTGAATTTGGCTTTACGGGTGTAACA  
 CTGATGGTATATCAGTATCTGAGACCCCAAACCTCCAATACTGATGGTGCATTTTATT  
 CTTGAAGTGAAATCTGTGCAATAAAATAACAGACTGTCTGCAAAAAAAAAAAAAA

|                                     |  |
|-------------------------------------|--|
| <b>5' Read Nucleotide Sequence:</b> | >OriGene 5' read for NM_005602 unedited<br>NNNNTTGTTCGGATTTGTATACGACTCATATAGGGCGGCCGCGATTCCCGGGATATCGTC<br>GACCCACGCGTCCGGTCCCCGCGTGCGCCCTTCGCCGCTGAGCTCGCAGCCTCCGGCGC<br>CCACCTCCACCTCCAGTGTCCCGCTCGGGCCGTGCCCTCCAGCGGCTCGCGAGCGTGG<br>GAGACGTACCTGGGCAGGCACTGTCCAGCCCAGGCCAGGCACAGCCGTGAGGGGCGAGG<br>CACGGGGACATCCTGGCGGCCACCATGGTGGCCACGTGCCTCGAGTGGTGGGCTTCGTC<br>ACGAGCTTCGTGGGCTGGATCGGGGTTCATCGTGACCACCTCCACCAATGACTGGGTGGTG<br>ACCTGCGGCTACCCATCCCCACCTGCCGCAAGCTGGATGAGCTGGGCTCCAAGGGGCTG<br>TGGGCCGACTGCGTCATGGCCACGGNGTGTACCACTGCAAGCCCCTGGTGGACATCCTC<br>ATCCTGCCGGGCTACGTGCAGGCCTGCCGCGCCCTGATGATTGCTGCCTCGGTCCTGGGT<br>CTGCCGGCATTACTGCTGCTGACTGTTCTTCCCTGCATCCGGATGGGCCAGGAGCCC<br>GGTGTGGTAAGTACAGGCGGGCCAGCTGGCTGGTGTGTTTGTCTATTCTGCTGGCTCTC<br>TGCGCCCTTGTGCCACCATCTGGTTCCTGTGTGCGCCACCGTGAGACCACCATCGTG<br>AGCTTTGGCTACTCCNTGTATGCANGCTGGATTGGTGTGCTGTGCTCGCTCGTGGGGTGC<br>TGTGTCATCCTCTGCTGCGCTGGAGATGCCCCAGCCTTTGGTGAACCCGTTCTACTACA<br>CTGCGGGCTCTAGCTTCCCGACTCATGCGAAGAGTGCCACC |
| <b>Restriction Sites:</b>           | Please inquire   |
| <b>ACCN:</b>                        | NM_005602  |
| <b>Insert Size:</b>                 | 2156 bp  |
| <b>OTI Disclaimer:</b>              | 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).   |
| <b>Components:</b>                  | 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).   |
| <b>Reconstitution Method:</b>       | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>  |
| <b>RefSeq:</b>                      | <a href="#">NM_005602.4</a> , <a href="#">NP_005593.2</a>  |
| <b>RefSeq Size:</b>                 | 2169 bp  |
| <b>RefSeq ORF:</b>                  | 624 bp   |
| <b>Locus ID:</b>                    | 5010   |
| <b>UniProt ID:</b>                  | <a href="#">O75508</a>   |
| <b>Cytogenetics:</b>                | 3q26.2   |
| <b>Protein Families:</b>            | Transmembrane  |
| <b>Protein Pathways:</b>            | Cell adhesion molecules (CAMs), Leukocyte transendothelial migration, Tight junction   |

**Gene Summary:**

This gene encodes a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions. The protein encoded by this gene is a major component of central nervous system (CNS) myelin and plays an important role in regulating proliferation and migration of oligodendrocytes. Mouse studies showed that the gene deficiency results in deafness and loss of the Sertoli cell epithelial phenotype in the testis. This protein is a tight junction protein at the human blood-testis barrier (BTB), and the BTB disruption is related to a dysfunction of this gene. Alternatively spliced transcript variants encoding different isoforms have been identified.[provided by RefSeq, Aug 2010]

Transcript Variant: This variant (1) is the longer transcript and encodes the longer isoform (1).