

## Product datasheet for **SC125295**

### **BMP2K (NM\_198892) Human Untagged Clone**

#### Product data:

|                      |                                                                                                   |
|----------------------|---------------------------------------------------------------------------------------------------|
| Product Type:        | Expression Plasmids                                                                               |
| Product Name:        | BMP2K (NM_198892) Human Untagged Clone                                                            |
| Tag:                 | Tag Free                                                                                          |
| Symbol:              | BMP2K                                                                                             |
| Synonyms:            | BIKE; HRIHFB2017                                                                                  |
| Vector:              | <u>pCMV6-XL4</u>                                                                                  |
| E. coli Selection:   | Ampicillin (100 ug/mL)                                                                            |
| Cell Selection:      | None                                                                                              |
| Fully Sequenced ORF: | >NCBI ORF sequence for NM_198892, the custom clone sequence may differ by one or more nucleotides |

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ATGAAGAAGTTCTCTCGGATGCCAAGTCGGAGGGCGGCAGCGGCGGGAGCGGCGGGTGGCGGGGCTG
CGGGGGCCGGGGCCGGGCGGCTGCGGCTCCGGCGGCTCGTCCGTGGGGTCCGGGTGTTCCGGTTCGG
CCGCCACCAGGTCACCCTGGAAGAGTCGCTGGCCGAAGGTGGATTCTCCACAGTTTTCTCGTGCCTACT
CACGGTGAATCCGATGTGCATTGAAGCGAATGTATGTCAATAACATGCCAGACCTCAATGTTTGTAAAA
GGGAAATTACAATTATGAAAGAGCTATCTGGTCAAAAAATATTGTGGGCTATTTGGACTGTGCTGTTAA
TTCAATTAGTGATAATGTATGGGAAGTCCTTATCTTAATGGAATATTGTGAGCTGGACAGGTAGTGAAT
CAAATGAATAAGAAGCTACAGACGGGTTTTACAGAACCAGAAGTGTACAGATATTCTGTGATACCTGTG
AAGCTGTTGCAAGGTTGCATCAGTGAAGACTCCAATAATTCACCGGGATCTGAAGGTAGAAAATATTTT
GTTGAATGATGGTGGAACTATGTACTTTGTGACTTTGGCAGTGCCACTAATAAAATTTCTTAATCCTCAA
AAAGATGGAGTTAATGTAGTAGAAGAAGAAATAAAAAGTATACTACTGTGCATACAGAGCCCCTGAAA
TGATCAACCTTTATGGAGGAAACCCATCACCACCAAGGCTGATATCTGGGCACTGGGATGTCTACTCTA
TAACTTTGTTTCTTCACTCTTCTTTTGGTGAGAGTCAGTTGCTATCTGTGATGGCAACTTACCATC
CCAGACAATTCTCGTTACTCCCCTAACATACATTGCTTAATAAGGTTTCATGCTTGAACAGATCCGGAAC
ATAGACCTGATATATTTCAAGTGCATATTTTGCATTTAAATTTGCCAAAAGGATTGTCCAGTCTCCAA
CATCAATAAATCTTCTATTCTTCTCAGCTCTTCTGAAACCGATGACTGCTAGTGAAGCAGCTGCTAGGAAA
AGCCAAATAAAAGCCAGAATAACAGATACCATTGGACCAACAGAAACCTCAATTGCACCAAGACAAAGAC
CAAAGGCCAACTCTGCTACTACTGCCACTCCCAGTGTGCTGACCAATTCAAAGTTCAGCAACACCTGTTAA
AGTCTTGGTCTCCTGGTGAATTCGGTAACCATAGACAAAAGGGGCACTAAGACCTGGAAATGGCCCTGAA
ATTTTATGGGTCAGGGACCTCCTCAGCAGCCGCCACAGCAGCATAGAGTACTCCAGCAACTACAGCAGG
GAGATTGGAGATTACAGCAACTCCATTTACAGCATCGTCATCCTCACCAGCAGCAGCAGCAGCAGCAGCA
GCAACAGCAACAGCAGCAGCAGCAACAGCAACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC
CACCACCACCTACTTCAAGATGCTTATATGCAGCAGTATCAACATGCAACACAGCAGCAACAGATGC
TTCAACAACAATTTTAAATGCATTCCGGTATATCAACCACAACCTTCTGCATCACAGTATCTACAATGAT
GCCGAGTATCAGCAGGCTTTCTTTCAACAGCAGATGCTAGTCAACATCAGCCGTCTCAACAACAGGCA

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TCACCTGAATATCTTACCTCCCCTCAAGAGTTCTCACCAGCCTTAGTTTCTACACTTCATCACTTCCAG
CTCAGGTTGGAACCATAATGGACTCCTCTATAGTGCCAAATAGGTCAGTTGCTGATAAAGAGGCCATTGC
AAATTTACAAATCAGAAGAACATCAGCAATCCACCTGATATGTCAGGGTGAATCCTTTTGGAGAGGAT
AATTTCTAAGTTAACAGAAGAGGAATATTGGACAGAGAATTTGACCTTCTAAGATCAAATAGGCTCG
AGGAGAGAGCATCCTCAGATAAGAATGTAGACTCACTTTCTGCTCCACATAACCATCCTCCAGAAGATCC
TTTTGGTTCTGTCTTTTCATTTCTCATTCAAGTTCTCCTGAAAAGAAAGCTGAACATTCATCTATAAT
CAAGAAAATGGCACTGCAAACCCTATCAAGAACGGTAAAACAAGTCCAGCATCTAAGATCAGCGGACTG
GAAAGAAAACCTCAGTACAGGGTCAAGTCAAAAAGGGGAATGATGAATCTGAAAAGTGATTTTGAATCAGA
TCCCCCTTCTCCTAAGAGCAGTGAAGAGGAAGAGCAAGATGATGAAGAAGTTCTCAGGGGGAACAAGGA
GATTTTAAATGATGATGATACTGAACCAGAAAATCTGGGTCATAGGCCTCTCCTCATGGATTCTGAAGATG
AGGAAGAAGAGGAGAAAACATAGCTCTGATTCTGATTATGAGCAGGCTAAAGCAAAGTACAGTGACATGAG
CTCTGTCTACAGAGACAGATCTGGCAGTGGACCAACCAAGATCTTAATAACAATACTCCTCACCTCAGCC
CAATTATCCTCTGATGTTGCAGTGGAGACTCCAAACAGGAGTTTGATGTATTTGGCGTGTCCCCTTCT
TTGCAGTGCCTCAACAGCCCAGCAAGAAAAGAATGAAAAGAACCTCCTCAACACAGGTTTCTCTGC
TGCAGGACTGGAGCAGGAGGAATTTGATGTATTCAAAAGGCGCCTTTTAGCAAGAAGGTGAATGTACAA
GAATGCCATGCAGTGGGGCTGAGGCACATACTATCCCTGGTTATCCCAAAGTGTAGATGTATTTGGCT
CCTCCATTTACGCCCTTCTCACATCAACAAGTAAAAGTAAAAGCAATGAGGACCTTTTTGGGCTTGT
GCCCTTTGATGAAATAACGGGGAGCCAGCAGCAAAAAGTCAAACAGCGCAGCTTACAGAACTGTCTCT
CGCCAAAGGCGCACAAAGCAGGATATGTCCAAAAGTAAAGGGAAGCGGCATCATGGCAGGCCAACTAGCA
CAAAGAAGACTTTGAAGCCTACCTATCGCACTCCAGAGAGGGCTCGCAGGCACAAAAAAGTGGGCGCCCG
AGACTCTCAAAGTAGCAATGAATTTTTAACCATCTCAGACTCCAAGGAGAACATTAGTGTGCACTGACT
GATGGGAAAGATAGGGGAATGTCTTACAACCTGAGGAGAGCCTGTTGGACCCCTTCGGTGCCAAGCCCT
TCCATTTCCAGACCTGTATGGCACCTCCACATCAGGGCCTGAGCGACATCCGTGCTGATCACAAATAC
TGTCTGCCAGGGCGCCAAAGACAAAATCACTACATGGGTATTCCATAGTGCAGATGTATTGAAAATG
GATGATTTTGGTGCCGTGCCCTTTACAGAACTTGTGGTCAAAGCATCACTCCACATCAGTCCCAACAGT
CCCAACCAGTCAATTAGACCCATTTGGTGCTGTCCATTTCTTCTAAACAGTAG
    
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**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_198892 unedited
NGGTAACGTTCCAATTTGTATACGACTCATATAGGGCGGCCGGAATTCGCACGAGGCGG
CGGCGTCGCCCTGGATTTCGGACCCGCCCTCGCGCCCCGCCCGTCCCGCCCTCCCC
ACCGCCCTCTGCGGGAGCCGGGAGCTGCAGCGGAGCCGCGGAGCGGGCGGGGCCCA
GGCTGTGCGCTTGGGAGCGCGGAATGTGAGGCTTGGCGGGCCGACGACGCTCGGACGG
GCCAGGGGCGGACCCCTCGCGGACGCCCGGCTGCGCGCCGGGCGGGGACTTGCCCTT
GCACGCTCCCTGCGCCCTCCAGCTCGCCGGCGGGACCATGAAGAAGTTCTCTCGGATGCC
CAAGTCGGAGGGCGCAGCGGCGGAGCGGCGGGTGGCGGGGCTGGCGGGGCCGGGGC
CGGGCCGGCTGCGGCTCCGGCGGCTCGTCCGTGGGGTCCGGGTGTTGCGGTGCGCCG
CCACCAGTCCACCTGGAAGAGTCGCTGGCCGAAGGTGGATTCTCCACAGTTTTCTCGT
GGTACTCACGGTGAATCCGATGTGCATTGAAGCGAATGTATGTCAATAACATGCCAGA
CCTCAATGTTTGTAAAAGGGAAATTACAATTATGAAAGAGCTATCTGGTCACAAAATAT
TGTGGGCTATTTGGACTGTGCTGTTAATCAATTAGTGATAATGTATGGGGAAGTCTTA
TCTTAATGGAATATTGTCAAGCTGGACAAGGTGTGAATCAAATGGATAAGAAGCCTCGGA
CGGTTTTACAGAACCAGAAGTGTACAGATATTCTGTGATACCTGTGGAGCTGTTGCAG
GTTGCATCAGTGAAGACTCCATAATTCACCGGATCTGAAGGTAGAAAT
    
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|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3' Read Nucleotide Sequence:</b> | >OriGene 3' read for NM_198892 unedited<br>GCGTGGCACTTCCGGGCCAGGAGAGGCACTGGGGAGGGGTACAGGGATGCCACCCGGGA<br>TCTGTTCAGGAAACAGCTATGACCGCGGCCGAATCTAGAGTCGAGTTTTTTTTTTTTTTT<br>TTTTTTTTTTTTTTTTTAAAGAATATGCAATCCATTTGGGATTTATTGCATTTAAAGAAA<br>ACAGATTAACAGGTATGATAAATACAGTAAGAAAATAACTTTAAATTTCAAACAAAAC<br>AGTGAATCAGGGACAGAATTCAGTCAAAAAGAATAAGCAGTGTAAGGCAATAANAGTTA<br>TAAAATCAGTTAGTGCTTATTNATATGGAGGGGAAAAGGGTGGGAGGGGAGACTGAGT<br>CTATCTATAATTGTTTCCAGCTNTNTTNNAGGCTAGAGTTNCTTTAGCAANTATGT<br>TTTTGTNNCCNNGTTGAAAATACCAATAAAAAGATGGTAAAATTTTGCTTTTATTTTAA<br>AAGGTTTAAAAAGTTATTTTGTCTAATGGTACATAAAAAGGCTTCAGAAAATTCAGTT<br>TAACAAAAATGGAAGTGAATCAAAGAAATGCACTTAAAGCTGTTTGCCNCAATTA<br>AGTAGCTCTATCAGCCTCTTTANATGACTTTTCATCCAAAAGAGCATAGTCTAAAACAAT<br>TCTTCAAATGCGTAAAATTTAA |
| <b>Restriction Sites:</b>           | Please inquire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ACCN:</b>                        | NM_198892                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Insert Size:</b>                 | 9000 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>                      | <u>NM_198892.1, NP_942595.1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RefSeq Size:</b>                 | 3859 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>RefSeq ORF:</b>                  | 3486 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Locus ID:</b>                    | 55589                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>UniProt ID:</b>                  | <u>Q9NSY1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Cytogenetics:</b>                | 4q21.21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Protein Families:</b>            | Druggable Genome, Protein Kinase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

**Gene Summary:**

This gene is the human homolog of mouse BMP-2-inducible kinase. Bone morphogenic proteins (BMPs) play a key role in skeletal development and patterning. Expression of the mouse gene is increased during BMP-2 induced differentiation and the gene product is a putative serine/threonine protein kinase containing a nuclear localization signal. Therefore, the protein encoded by this human homolog is thought to be a protein kinase with a putative regulatory role in attenuating the program of osteoblast differentiation. 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).