

Product datasheet for **SC323525**

DYRK2 (NM_003583) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | DYRK2 (NM_003583) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | DYRK2 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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Fully Sequenced ORF: >OriGene ORF within SC323525 sequence for NM_003583 edited (data generated by NextGen Sequencing)

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ATGAATGATCACCTGCATGTCGGCAGCCACGCTCACGGACAGATCCAGGTTCAACAGTTG
TTTGAGGATAACAGTAACAAGCGGACAGTGCTCACGACACAACCAATGGGCTTACAACA
GTGGGCAAACCGGGCTTGCCAGTGGTGCCAGAGCGGCAGCTGGACAGCATTATAGACGG
CAGGGGAGCTCCACCTCTCTAAAGTCCATGGAAGGCATGGGAAGGTGAAAGCCACCCCC
ATGACACCTGAACAAGCAATGAAGCAATACATGCAAAAACCTCACAGCCTTCGAACACCAT
GAGATTTTCAGCTACCCTGAAATATATTTCTTGGGTCTAAATGCTAAGAAGCGCCAGGGC
ATGACAGGTGGGCCCAACAATGGTGGCTATGATGATGACCAGGGATCATATGTGCAGGTG
CCCCACGATCACGTGGCTTACAGGTATGAGGTCCTCAAGGTCATTGGGAAGGGGAGCTTT
GGGCAGGTGGTCAAGGCCTACGATCACAAAGTCCACCAGCACGTGGCCCTAATGATGGTG
CGGAATGAGAAGCGCTTCCACCGCAAGCAGCGGAGGAGATCCGAATCCTGGAACACCTG
CGGAAGCAGGACAAGGATAACACAATGAATGTCATCCATATGCTGGAGAATTTACCTTC
CGCAACCACATCTGCATGACGTTTGAGCTGCTGAGCATGAACCTCTATGAGCTCATCAAG
AAGAATAAATTCAGGGCTTCAGTCTGCCTTTGGTTTCGCAAGTTTGCCCACTCGATTCTG
CAGTGTCTGGATGCTTTGCACAAAACAGAATAATTCAGTGTGACCTTAAGCCCGAGAAC
ATTTTGTAAAGCAGCAGGGTAGAAGCGGTATTAAGTAATTGATTTTGGCTCCAGTTGT
TACGAGCATCAGCGTGTCTACACGTACATCCAGTCGCGTTTTTACCGGGCTCCAGAAGTG
ATCCTTGGGGCCAGGTATGGCATGCCATTGATATGTGGAGCCTGGGCTGCATTTTAGCA
GAGCTCCTGACGGGTTACCCCTCTTGCCTGGGAAGATGAAGGGGACCAGCTGGCCTGT
ATGATTGAACTGTTGGGCATGCCCTCACAGAACTGCTGGATGCATCCAACGAGCCAAA
AATTTTGTGAGCTCCAAGGGTTATCCCGTTACTGCACTGTCACGACTCTCTCAGATGGC
TCTGTGGTCTTAAACGGAGGCCGTTCCCGGAGGGGAAACTGAGGGGCCACCGGAGAGC
AGAGAGTGGGGGAACCGCTGAAGGGGTGTGATGATCCCTTTTCTTGACTTCTTAAAA
CAGTGTTTAGAGTGGGATCCTGCAGTGCCATGACCCCAAGCCAGGCTTTGCGGCACCC
TGGCTGAGGAGCGGTTGCCAAAGCCTCCACCGGGGAGAAAACGTCAGTGAAAAGGATA
ACTGAGAGCACCGGTGCTATCACATCTATATCCAAGTTACCTCCACCTTCTAGCTCAGCT
TCCAAACTGAGGACTAATTTGGCGCAGATGACAGATGCCAATGGGAATATTCAGCAGAGG
ACAGTGTGCCAAAACCTGTTAGCTGA
    
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Clone variation with respect to NM_003583.3
533 a=>t

5' Read Nucleotide Sequence:

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>OriGene 5' read for mutant NM_003583 unedited
CCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTT
AGTGAACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGG
CGGCGCAGGGGA
GGGCGAGGCATGTGCACGGGCCGAGGGTGTGCAGCCGCCGAGGAAGAGGAGGACGGCGGC
GAGGAGG
AGAGCGGGGGGCTCGCGCGGGCCCGGGCCCGGGCAGGGGATGCAGTGGACTGTGTGTCTG
GCTGTAGC
AGACGCGAGGCGGCGACGAGGGCGCCGGGACCCGCGCAGGGGGCGGGCCGGGAGGCGGGC
GGGCGGGC
GGGCCCGCAGAAAGTAGCAGCAAGGACCGGGCGGCCGGGCGGACCAGGCAAGCCCTTGAA
AATGGCATTTT
TCTTTCTCCCAGGCGGGCCATGTGTTACCCCAAGAAAACCTTTCCGGCCGGCCGCTTCCC
GCCCCGCTTAC
CCGAACCGAATTGGCGGGCATTAAAGCCCAATGGAATAATCCCTGATGTGTGGCACCCAC
GCGCTCAC
GGCAGATATCCAGTTTCAAAAGTTTGTGGGGAAAACAGTAACAACGGACAGTGGGCTAGG
ACCCACC
AATGGGGCTCACCAAAGTGCAAAAACGGGTCTCCCAATGTGTGCCAGAGGGACCTGGC
ACACAT
ACACGGCCGGGGATCTCCCTCTCTAATGCACAGTGAAGCATATGAGAGAGAACCACCCCT
GTAGA
CCCGTGAACAATGAAGACATCATTGCGCAAACCTCCAGGCTCGACACACTGAGATTTT
AGCTCCTGAGAA
TATATCTTGGGTAAGCTAGAAACCACGCATCACAGTGCACAATGGCTATGAGAACAGGAT
ATTGCAGTGC
CGATACTGCTCAGTAGATTTCAAGCATGTAGAGCCATGCAAGGCTGAAGGATCTC
    
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| Kinase Domain Sequence: | >SC323525 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation TCAGATMGTGGCTTAAGGTATGAGGTCCTCAAGGTCATTGGGAAGGGGAGCTTTGGGCAGGTGGTCAAGG CCTACGATCACAAAGTCCACCAGCACGTGGCCCTAATGATGGTGCGGAATGAGAAGCGCTCCACCGGCA AGCAGCGGAGGAGATCCGAATCCTGGAACACCTGCGGAAGCAGGACAAGGATAACACAATGAATGTCATC CATATGCTGGAGAATTTACCTCCGCAACCACATCTGCATGACG |
| Restriction Sites: | Please inquire |
| ACCN: | NM_003583 |
| Insert Size: | 5880 bp |
| OTI Disclaimer: | Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548. |
| 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: | <ol style="list-style-type: none"> 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_003583.2 , NP_003574.1 |
| RefSeq Size: | 3466 bp |
| RefSeq ORF: | 1587 bp |
| Locus ID: | 8445 |
| UniProt ID: | Q92630 |

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| Cytogenetics: | 12q15 |
| Domains: | pkinase, TyrKc, S_TKc |
| Protein Families: | Druggable Genome, Protein Kinase |
| Gene Summary: | <p>DYRK2 belongs to a family of protein kinases whose members are presumed to be involved in cellular growth and/or development. The family is defined by structural similarity of their kinase domains and their capability to autophosphorylate on tyrosine residues. DYRK2 has demonstrated tyrosine autophosphorylation and catalyzed phosphorylation of histones H3 and H2B in vitro. Two isoforms of DYRK2 have been isolated. The predominant isoform, isoform 1, lacks a 5' terminal insert. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1) does not include the 149 bp insert in the 5' end of the transcript and thus results in a shorter amino-terminal protein.</p> |