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## Product datasheet for SC127411

## CDC25A (NM_001789) Human Untagged Clone

## Product data:

Product Type: Expression Plasmids
Product Name: CDC25A (NM_001789) Human Untagged Clone
Tag:
Symbol:
Tag Free
CDC25A
Synonyms:
CDC25A2
Mammalian Cell
None
Selection:
Vector:
pCMV6-XL6
E. coli Selection:

Ampicillin (100 ug/mL)

Fully Sequenced ORF: >NCBI ORF sequence for NM_001789, the custom clone sequence may differ by one or more nucleotides

ATGGAACTGGGCCCGGAGCCCCCGCACCGCCGCCGCCTGCTCTTCGCCTGCAGCCCCCCTCCCGCGTCGC AGCCCGTCGTGAAGGCGCTATTTGGCGCTTCAGCCGCCGGGGGACTGTCGCCTGTCACCAACCTGACCGT CACTATGGACCAGCTGCAGGGTCTGGGCAGTGATTATGAGCAACCACTGGAGGTGAAGAACAACAGTAAT CTGCAGAGAATGGGCTCCTCCGAGTCAACAGATTCAGGTTTCTGTCTAGATTCTCCTGGGCCATTGGACA GTAAAGAAAACCTTGAAAATCCTATGAGAAGAATACATTCCCTACCTCAGAAGCTGTTGGGATGTAGTCC AGCTCTGAAGAGGAGCCATTCTGATTCTCTTGACCATGACATCTTTCAGCTCATCGACCCAGATGAGAAC AAGGAAAATGAAGCCTTTGAGTTTAAGAAGCCAGTAAGACCTGTATCTCGTGGCTGCCTGCACTCTCATG GACTCCAGGAGGGTAAAGATCTCTTCACACAGAGGCAGAACTCTGCCCCAGCTCGGATGCTTTCCTCAAA TGAAAGAGATAGCAGTGAACCAGGGAATTTCATTCCTCTTTTTACACCCCAGTCACCTGTGACAGCCACT TTGTCTGATGAGGATGATGGCTTCGTGGACCTTCTCGATGGAGAGAATCTGAAGAATGAGGAGGAGACCC CCTCGTGCATGGCAAGCCTCTGGACAGCTCCTCTCGTCATGAGAACTACAAACCTTGACAACCGATGCAA GCTGTTTGACTCCCCTTCCCTGTGTAGCTCCAGCACTCGGTCAGTGTTGAAGAGACCAGAACGATCTCAA GAGGAGTCTCCACCTGGAAGTACAAAGAGGAGGAAGAGCATGTCTGGGGCCAGCCCCAAAGAGTCAACTA ATCCAGAGAAGGCCCATGAGACTCTTCATCAGTCTTTATCCCTGGCATCTTCCCCCAAAGGAACCATTGA GAACATTTTGGACAATGACCCAAGGGACCTTATAGGAGACTTCTCCAAGGGTTATCTCTTTCATACAGTT GCTGGGAAACATCAGGATTTAAAATACATCTCTCCAGAAATTATGGCATCTGTTTTGAATGGCAAGTTTG CCAACCTCATTAAAGAGTTTGTTATCATCGACTGTCGATACCCATATGAATACGAGGGAGGCCACATCAA GGGTGCAGTGAACTTGCACATGGAAGAAGAGGTTGAAGACTTCTTATTGAAGAAGCCCATTGTACCTACT GATGGCAAGCGTGTCATTGTTGTGTTTCACTGCGAGTTTTCTTCTGAGAGAGGTCCCCGCATGTGCCGGT ATGTGAGAGAGAGAGATCGCCTGGGTAATGAATACCCCAAACTCCACTACCCTGAGCTGTATGTCCTGAA GGGGGGATACAAGGAGTTCTTTATGAAATGCCAGTCTTACTGTGAGCCCCCTAGCTACCGGCCCATGCAC CACGAGGACTTTAAAGAAGACCTGAAGAAGTTCCGCACCAAGAGCCGGACCTGGGCAGGGGAGAAGAGCA AGAGGGAGATGTACAGTCGTCTGAAGAAGCTCTGA

## 5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001789 unedited TCCCGCCCCGTTGCCGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGA GCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTTCTTTTTGCAGCGGCCGCGAAT CGGCACGAGGGCGAAAGGCCGGCCTGGCTGCGACAGCCTGGGTAAGAGGTGTAGGTCGGC TTGGTTTTCTGCTACCCGGAGCTGGGCAAGCGGGTGGGAGAACAGCGAAGACAGCGTGAG CCTGGGCCGTTGCCTCGAGGCTCTCGCCCGGCTTCTCTTGCCGACCCGCCACGTTTGTTT GGATTTAATCTTCAGGTTGCCGGCGCCCGCCCGCCCGCTGGCCTCGCGGTGTGAGAGGGA AGCACCCGTGCCTGTGGCTGGTGGCTGGCGCCTGGAGGGTCCGCACACCCGCCCGGCCGC GCCGCTTGCCCGCGGCAGCCGCGTCCCTGAACCGCGGAGTCGTGTTTGTGTTTGACCCGC GGGCGCCGGTGGCGCGCGGCCGAGGCCGGTGTCGGCGGGGCGGGGCGGTCGCGGCGGAGG CAGAGGAAGAGGGAGCGGGAGCTCTGCGAGGCCCGGCGCCGCCATGGAACTGGGCCCGGA GCCCCCGCACCGNCGNCGNCTGCTNTTCGCCTGCAGCCCCCCTCCGCGTCGCAGCCGTCG TGGAAGTGCTATTTGGCGCCTCACCGNCGGGGGACTGTCGCCTGTCACCACCCTGACCGT CACTATGTACCAGCTGCAGGGTCTGGGCAGGGATTATGAGCACCACTGGAGGTGAAGAAC ACCGTAATCTGCAGAGAAGGGCTCCTCCCATCCCCGAATCCGGGTTTTGGCTAGATACTC TGGCCCATGGCACAGAAAGAAACCCTTGAATCCTTTGAAAGAAAACCTTCCTACCTAGAG CTGTGGGGAAGGGCCCCACTTTTAAAAGGACCTTCTGATTCTTGACACGAAACTTTAGCT G

| 3' Read Nucleotide | >OriGene 3' read for NM_001789 unedited |
| :---: | :---: |
| Sequence: | ACAGGTGNATGCCCCCGTTGTGGGGTCGGTAAATCTTTTTTTTTTTTGGGTTCAAAATCT |
|  | TTTATTTTCAGAGCTTCCAACAGTTGGTTAGTAATGCTAGCTAAGCTGGTATAATCTGAA |
|  | GGCCATCCCACCTTTCTCTTTAGGCAGTCAACCAACAGAATCTCTTTCTTACAAACAATA |
|  | TCATTAACCAGTTGGAATCTGTCTCAATGCGCGTGTAGGAAGAAGTCCTCTCCCCCACAT |
|  | TTTTCCCAACAAGATTGTTTTATAGCCAAATGTAACTCAAACCCGTAACACAGCAACTAG |
|  | CCATCTCCAGTATCACTGATTCCCACCCCAAGAAGTTGAGGTAAGAGGGGAGAGACTGTC |
|  | TCCTGTTTAAGAAAAACCCACCTACACCTCAGTGAAGCCGTGATGGTAAGGAGGCTGGCA |
|  | CCAGAGGGCAGGGATGAGTAGGCACTGAAACAGGTCTCTCTAGAATCAATGAAGTCTGCC |
|  | CCAGCTCCTTGGATGAGGTGTTCTTTTGAAATTCCCACTTTTATGGAGTTAGATAAGGGG |
|  | ACAACCGGTGATGATTCATCACTCCCTGTCTCTAAAATTAAAACATGATAAACCCAGAAA |
|  | GTTTTACCTTCAAAATCCACCAAGCTCCCTCCTGAGAAAATTCTATCCAGTCATGTCCAT |
|  | GCCAGCACCCACTCCCTTCTCCTAATGCCCAGGGCTTTCAGCCCCTCTCCTCACCCTTGG |
|  | TGGTCCATCCCACACTGGATTGATACTCTTTGACTCATATATGACCATTTTTTAAAATTA |
|  | GGAAATAAAGCTTTCATATCCAGCAACTTAGGAAGATCTCAGGGACATGCTCCTCCCCCT |
|  | CCTGGGAGGCCACTACCCCAACCCCTTTCCTGGGAACTAACTGNAACTTTCCGC |
| Restriction Sites: | Notl-Notl |
| ACCN: | NM_001789 |
| Insert Size: | 3900 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 |
| 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 5 min . |
|  | 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 5000 xg ) to concentrate the liquid at the bottom. |
|  | 5. Store the suspended plasmid at $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of shipping when stored at $-20^{\circ} \mathrm{C}$. |
| RefSeq: | NM 001789.2 NP 001780.2 |
| RefSeq Size: | 3717 bp |
| RefSeq ORF: | 1575 bp |

Locus ID: ..... 993
UniProt ID: ..... P30304
Cytogenetics: ..... 3p21.31
Domains: RHOD
Protein Families: Druggable Genome, Phosphatase
Protein Pathways: Cell cycle, Progesterone-mediated oocyte maturation
Gene Summary:

CDC25A is a member of the CDC25 family of phosphatases. CDC25A is required for progression from G1 to the S phase of the cell cycle. It activates the cyclin-dependent kinase CDC2 by removing two phosphate groups. CDC25A is specifically degraded in response to DNA damage, which prevents cells with chromosomal abnormalities from progressing through cell division. CDC25A is an oncogene, although its exact role in oncogenesis has not been demonstrated. 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).

