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Nucleotide

GenBank

Homo sapiens kinase non-catalytic C-lobe domain containing 1 (KNDC1), transcript variant 2, mRNA

NCBI Reference Sequence: NM_001347864.2

FASTA Graphics

Go to:

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LOCUS       NM_001347864            2917 bp    mRNA    linear   PRI 18-DEC-2022
DEFINITION  Homo sapiens kinase non-catalytic C-lobe domain containing 1
            (KNDC1), transcript variant 2, mRNA.
ACCESSION   NM_001347864
VERSION     NM_001347864.2
KEYWORDS    RefSeq.
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
            Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 2917)
  AUTHORS   Ji J, Hao Z, Liu H, Liu Y, Liu J, Lin B, Ma C and Lin Y.
  TITLE     Effect of KNDC1 overexpression on the senescence of human umbilical
            vein endothelial cells
  JOURNAL   Mol Med Rep 17 (5), 7037-7044 (2018)
   PUBMED   29568929
  REMARK    GeneRIF: The results demonstrated that KNDC1 overexpression
            possibly inhibited HUVEC activity and function and promoted HUVEC
            senescence. Mechanistic studies demonstrated that KNDC1 triggered a
            p53ROS positive feedback loop, which serves a crucial role in
            regulating senescence.
REFERENCE   2  (bases 1 to 2917)
  AUTHORS   Hayashi K, Furuya A, Sakamaki Y, Akagi T, Shinoda Y, Sadakata T,
            Hashikawa T, Shimizu K, Minami H, Sano Y, Nakayama M and Furuichi
            T.
  TITLE     The brain-specific RasGEF very-KIND is required for normal
            dendritic growth in cerebellar granule cells and proper motor
            coordination
  JOURNAL   PLoS One 12 (3), e0173175 (2017)
   PUBMED   28264072
  REMARK    Publication Status: Online-Only
REFERENCE   3  (bases 1 to 2917)
  AUTHORS   Zhang C, Zhen YZ, Lin YJ, Liu J, Wei J, Xu R and Hu G.
  TITLE     KNDC1 knockdown protects human umbilical vein endothelial cells
            from senescence
  JOURNAL   Mol Med Rep 10 (1), 82-88 (2014)
   PUBMED   24788352
  REMARK    GeneRIF: KNDC1 knockdown promoted HUVEC proliferation via the
            extracellular signal-regulated kinase signaling pathway and delayed
            HUVEC senescence by inhibiting the p53-p21-p16 transduction
            cascade.
COMMENT     REVIEWED REFSEQ: This record has been curated by NCBI staff. The
            reference sequence was derived from AL445199.37.

            On May 31, 2019 this sequence version replaced NM_001347864.1.

            Summary: The protein encoded by this gene is a Ras guanine
            nucleotide exchange factor that appears to negatively regulate
            dendritic growth in the brain. Knockdown of this gene in senescent
            umbilical vein endothelial cells partially reversed the senescence,
            showing that this gene could potentially be targeted by anti-aging
            therapies. [provided by RefSeq, Dec 2016].
```


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            Transcript Variant: This variant (2) differs in the 3' UTR and
            coding sequence compared to variant 1. The resulting isoform (2)
            has a shorter and distinct C-terminus compared to isoform 1.

            Sequence Note: The RefSeq transcript and protein were derived from
            genomic sequence to make the sequence consistent with the reference
            genome assembly. The genomic coordinates used for the transcript
            record were based on alignments.

            ##Evidence-Data-START##
            Transcript exon combination :: DRR138524.65538.1,
                                           SRR1803613.121259.1 [ECO:0000332]
            RNAseq introns              :: single sample supports all introns
                                           SAMEA1966682, SAMEA1968189
                                           [ECO:0000348]
            ##Evidence-Data-END##
            COMPLETENESS: complete on the 3' end.
PRIMARY     REFSEQ_SPAN         PRIMARY_IDENTIFIER PRIMARY_SPAN        COMP
            1-351               AL445199.37        129302-129652
            352-550             AL445199.37        136464-136662
            551-2917            AL445199.37        137337-139703
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                     cerebral protein 9; KIND domain-containing protein 1;
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