NRCD Human Full-Length cDNA Clone

Gene Engineering Division
RIKEN BioResource Research Center

RIKEN Clone ID : ARi20D04

Lot# : 7675_B5An

Vector : pGCAP10

Gene	RYK	
RefSeq_mRNA	NM_002958.4	3049 bp

● Plasmid DNA purification

Date : 2025/01/23 Culture : LB (100 ug/ml Ampicillin) 5 ml -> at 37 deg C O/N

Date : 2025/01/24 Purification : QIAGEN Miniprep kit -> dH_2O 100 ul

● Digestion by restriction enzyme/Concentrarion calibration

Date : 2025/01/24

DNA concentration (O.D.): 309 ng/ul

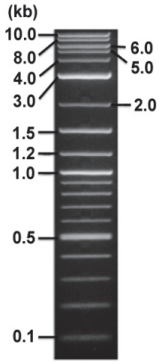
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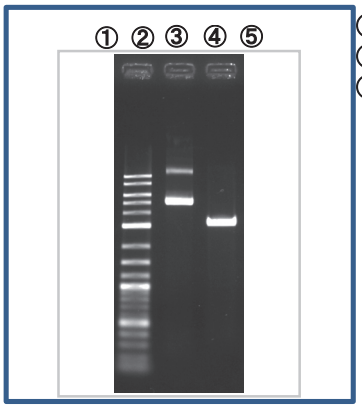
DNA	0.3	ul
Enzyme (BamHI)	1	ul
Buffer H	1	ul
dH_2O	7.7	ul
Total	10	ul

BamHI 3.1kb (vector), 3.2 kb

Erectrophoresis : 1% agarose gel, 1x TAE Buffer

Marker : 2-Log DNA Ladder (NEB#N3200L)





①:Marker
②:uncut
③:BamHI

● Confirmation of the sequence

Date : 2025/01/28

full sequence	ARi20D04hts01.seq

● Adjust plasmid DNA solution to 25 ng/ul

Date : 2025/01/29

DNA (309 ng/ul)	84	ul
10x TE	104	ul
dH_2O	850	ul
Total	1,038	ul

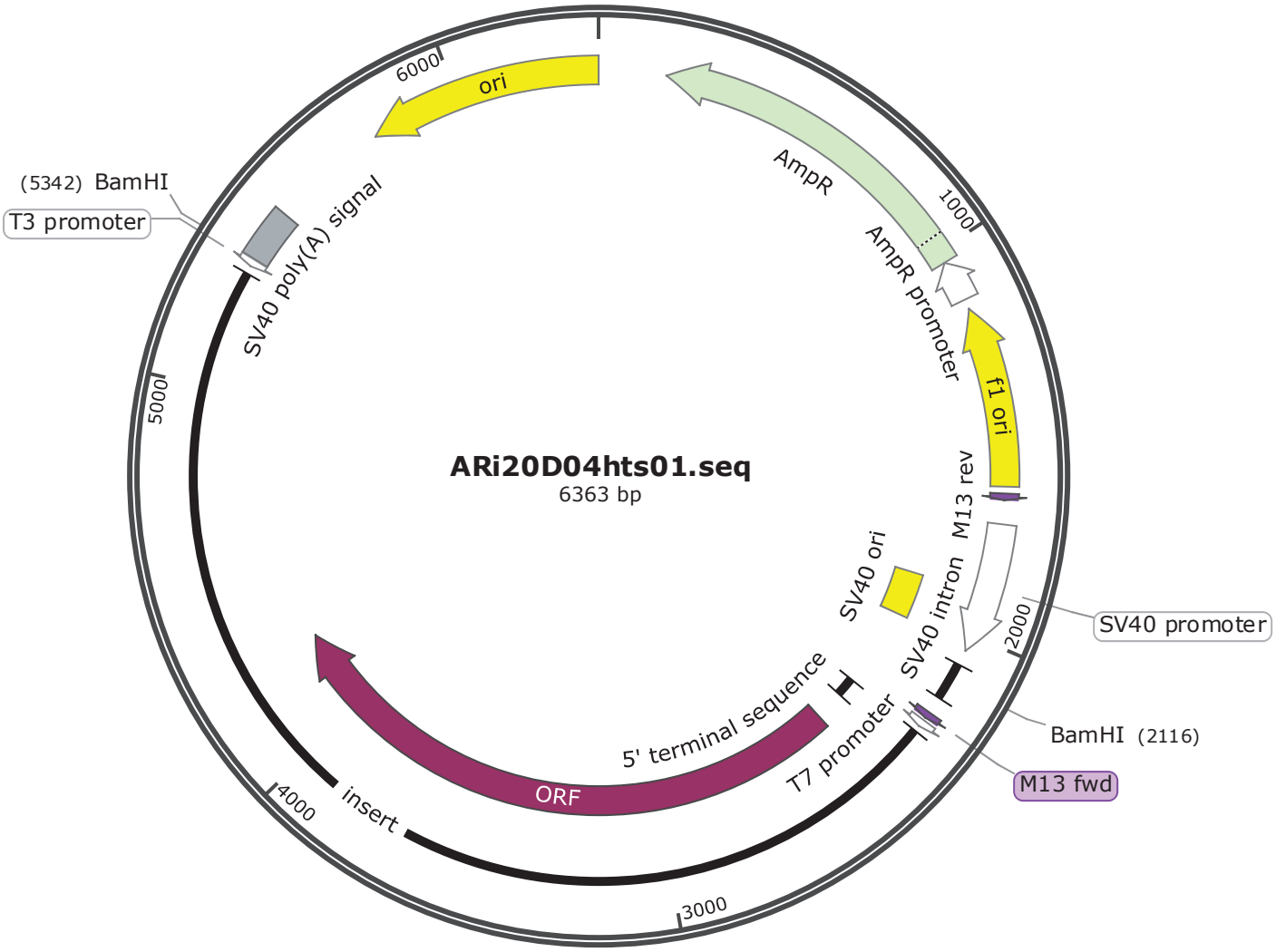
● Shipping

☑ Conc. : 25 ng/μl, Volume : 40 μl

☐ Conc. : __ ng/μl, Volume : __ μl

APPROVED BY : 検 '25.01.29 笹沼

http://dna.brc.riken.jp/index.html


ARi20D04hts01.seq
6363 bp
6000
ori
AmpR
1000
AmpR promoter
f1 ori
M13 rev
SV40 ori
SV40 intron
2000
SV40 promoter
BamHI (2116)
M13 fwd
5' terminal sequence
T7 promoter
ORF
insert
4000
3000
5000
SV40 poly(A) signal
(5342) BamHI
T3 promoter

BLAST Results

Questions/comments

Blast 2 sequences

Job title: NM_001291145:Mus musculus elastin microfibril...

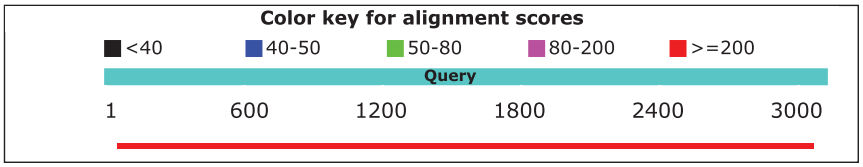
RID TH0DBHUV114 (Expires on 01-29 14:05 pm)

Query ID	NM_002958.4	**Subject ID**	lcl|Query_594909
Description	Homo sapiens receptor like tyrosine kinase (RYK), transcript variant 2, mRNA	**Description**	None See details
Molecule type	nucleic acid	**Molecule type**	dna
Query Length	3049	**Subject Length**	6363
		Program	BLASTN 2.16.1+

ARi20D04hts01.seq

Graphic Summary

Distribution of the top 1 Blast Hits on 1 subject sequences



Dot Matrix View

Descriptions

Sequences producing significant alignments:

Description	Max Score	Total Score	Query Cover	E value	Per. Ident	Accession
None provided	5520	5520	98%	0.0	99.93%	Query_594909

Alignments

Sequence ID: Query_594909 Length: 6363 Number of Matches: 1
Range 1: 2280 to 5274

Score	Expect	Identities	Gaps	Strand	Frame
5520 bits(2989)	0.0()	2993/2995(99%)	0/2995(0%)	Plus/Plus	

Features:

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Query                55    AGGTCTGAAGCCACTGCTGGCTGCCACGGGCCGGCGGTGCGATGAGCTGGGCAGCCGCCC  114
Sbjct                2280  ............................................................  2339

Query                115   Ccggctcggggctgtgagcggctcggggccgggggtgggcggcggtgcggcgggcggccg  174
Sbjct                2340  ............................................................  2399

CDS:tyrosine-protein 1                                  M  R  G  A  A  R  L  G  R  P
Query                175   acgctcctcttcggcggcggcggcggcggccatgcgtggggcggcgcggctggggcggcc  234
Sbjct                2400  ............................................................  2459

CDS:tyrosine-protein 11      G  R  S  C  L  P  G  A  R  G  L  R  A  P  P  P  P  P  L  L
Query                235   gggccggagttgcctcccgggggcccgcggcctgagggccccgccgccgccgccgctgct  294
Sbjct                2460  ............................................................  2519

CDS:tyrosine-protein 31      L  L  L  A  L  L  P  L  L  P  A  P  G  A  A  A  A  P  A  P
Query                295   gcttctgcttgcgctgttgccgctgctgcccgcgcctggcgctgccgccgccccccgcccc  354
Sbjct                2520  ............................................................  2579

CDS:tyrosine-protein 51      R  P  P  E  L  Q  S  A  S  A  G  P  S  V  S  L  Y  L  S  E
Query                355   gcggcccccgGAGCTGCAGTCGGCTTCCGCGGGGCCCAGCGTGAGTCTCTACCTGAGCGA  414
Sbjct                2580  ............................................................  2639

CDS:tyrosine-protein 71      D  E  V  R  R  L  I  G  L  D  A  E  L  Y  Y  V  R  N  D  L
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Query                 415   GGACGAGGTGCGCCGGCTGATCGGTCTTGATGCAGAACTTTATTATGTGAGAAATGACCT  474
Sbjct                 2640  ............................................................  2699

CDS:tyrosine-protein  91      I  S  H  Y  A  L  S  F  S  L  L  V  P  S  E  T  N  F  L  H
Query                 475   TATTAGTCACTACGCTCTATCCTTTAGTCTGTTAGTACCCAGTGAGACAAATTTCCTGCA  534
Sbjct                 2700  ............................................................  2759

CDS:tyrosine-protein  111     F  T  W  H  A  K  S  K  V  E  Y  K  L  G  F  Q  V  D  N  V
Query                 535   CTTCACCTGGCATGCGAAGTCCAAGGTTGAATATAAGCTGGGATTCCAAGTGGACAATGT  594
Sbjct                 2760  ............................................................  2819

CDS:tyrosine-protein  131     L  A  M  D  M  P  Q  V  N  I  S  V  Q  G  E  V  P  R  T  L
Query                 595   TTTGGCAATGGATATGCCCCAGGTCAACATTTCTGTTCAGGGGGAAGTTCCACGCACTTT  654
Sbjct                 2820  ............................................................  2879

CDS:tyrosine-protein  151     S  V  F  R  V  E  L  S  C  T  G  K  V  D  S  E  V  M  I  L
Query                 655   ATCAGTGTTTCGGGTAGAGCTTTCCTGTACTGGCAAAGTAGATTCTGAAGTTATGATACT  714
Sbjct                 2880  ............................................................  2939

CDS:tyrosine-protein  171     M  Q  L  N  L  T  V  N  S  S  K  N  F  T  V  L  N  F  K  R
Query                 715   AATGCAGCTCAACTTGACAGTAAATTCTTCAAAAAATTTTACCGTCTTAAATTTTAAACG  774
Sbjct                 2940  ............................................................  2999

CDS:tyrosine-protein  191     R  K  M  C  Y  K  K  L  E  E  V  K  T  S  A  L  D  K  N  T
Query                 775   AAGGAAAATGTGCTACAAAAAACTTGAAGAAGTAAAAACTTCAGCCTTGGACAAAAACAC  834
Sbjct                 3000  ............................................................  3059

CDS:tyrosine-protein  211     S  R  T  I  Y  D  P  V  H  A  A  P  T  T  S  T  R  V  F  Y
Query                 835   TAGCAGAACTATTTATGATCCTGTACATGCAGCTCCAACCACTTCTACGCGTGTGTTTTA  894
Sbjct                 3060  ............................................................  3119

CDS:tyrosine-protein  231     I  S  V  G  V  C  C  A  V  I  F  L  V  A  I  I  L  A  V  L
Query                 895   TATTAGTGTAGGGGTTTGTTGTGCAGTAATATTTCTCGTAGCAATAATATTAGCTGTTTT  954
Sbjct                 3120  ............................................................  3179

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Query                 955   GCACCTTCATAGTATGAAAAGGATTGAACTGGATGACAGCATTAGTGCCAGCAGTAGTTC  1014
Sbjct                 3180  ............................................................  3239

CDS:tyrosine-protein  271     Q  G  L  S  Q  P  S  T  Q  T  T  Q  Y  L  R  A  D  T  P  N
Query                 1015  CCAAGGGCTGTCTCAGCCATCCACCCAGACGACTCAGTATCTGAGAGCAGACACGCCCAA  1074
Sbjct                 3240  ............................................................  3299

CDS:tyrosine-protein  291     N  A  T  P  I  T  S  Y  P  T  L  R  I  E  K  N  D  L  R  S
Query                 1075  CAATGCAACTCCTATCACCAGTTATCCTACCTTGCGGATAGAGAAGAACGACTTGAGAAG  1134
Sbjct                 3300  ............................................................  3359

CDS:tyrosine-protein  311     V  T  L  L  E  A  K  G  K  V  K  D  I  A  I  S  R  E  R  I
Query                 1135  TGTCACTCTTTTGGAGGCCAAAGGCAAGGTGAAGGATATAGCAATATCCAGAGAGAGGAT  1194
Sbjct                 3360  ............................................................  3419

CDS:tyrosine-protein  331     T  L  K  D  V  L  Q  E  G  T  F  G  R  I  F  H  G  I  L  I
Query                 1195  AACTCTAAAAGATGTACTCCAAGAAGGTACTTTTGGGCGTATTTTCCATGGGATTTTAAT  1254
Sbjct                 3420  ............................................................  3479

CDS:tyrosine-protein  351     D  E  K  D  P  N  K  E  K  Q  A  F  V  K  T  V  K  D  Q  A
Query                 1255  AGATGAAAAAGATCCAAATAAAGAAAAACAAGCATTTGTCAAAACAGTTAAAGATCAAGC  1314
Sbjct                 3480  ............................................................  3539
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CDS:tyrosine-protein  371     S  E  I  Q  V  T  M  M  L  T  E  S  C  K  L  R  G  L  H  H
Query                 1315  TTCTGAAATTCAGGTGACAATGATGCTCACTGAAAGTTGTAAGCTGCGAGGTCTTCATCA  1374
Sbjct                 3540  ............................................................  3599

CDS:tyrosine-protein  391     R  N  L  L  P  I  T  H  V  C  I  E  E  G  E  K  P  M  V  I
Query                 1375  CAGAAATCTTCTTCCTATTACTCATGTGTGTATAGAAGAAGGAGAAAAGCCCATGGTGAT  1434
Sbjct                 3600  ............................................................  3659

CDS:tyrosine-protein  411     L  P  Y  M  N  W  G  N  L  K  L  F  L  R  Q  C  K  L  V  E
Query                 1435  ATTGCCTTACATGAATTGGGGGAATCTTAAATTGTTTTTACGACAGTGCAAGTTAGTAGA  1494
Sbjct                 3660  ............................................................  3719

CDS:tyrosine-protein  431     A  N  N  P  Q  A  I  S  Q  Q  D  L  V  H  M  A  I  Q  I  A
Query                 1495  GGCCAATAATCCACAGGCAATTTCTCAGCAAGACCTGGTACACATGGCTATTCAGATTGC  1554
Sbjct                 3720  ............................................................  3779

CDS:tyrosine-protein  451     C  G  M  S  Y  L  A  R  R  E  V  I  H  K  D  L  A  A  R  N
Query                 1555  CTGTGGAATGAGCTACCTGGCCAGAAGGGAAGTCATCCACAAAGACCTGGCTGCCAGGAA  1614
Sbjct                 3780  .................T..........................................  3839

CDS:tyrosine-protein  471     C  V  I  D  D  T  L  Q  V  K  I  T  D  N  A  L  S  R  D  L
Query                 1615  CTGTGTCATTGATGACACACTTCAAGTTAAGATCACAGACAATGCCCTCTCCAGAGACTT  1674
Sbjct                 3840  ............................................................  3899

CDS:tyrosine-protein  491     F  P  M  D  Y  H  C  L  G  D  N  E  N  R  P  V  R  W  M  A
Query                 1675  GTTCCCCATGGACTATCACTGTCTGGGGGACAATGAAAACAGGCCAGTTCGTTGGATGGC  1734
Sbjct                 3900  ............................................................  3959

CDS:tyrosine-protein  511     L  E  S  L  V  N  N  E  F  S  S  A  S  D  V  W  A  F  G  V
Query                 1735  TCTTGAAAGTCTGGTTAATAACGAGTTCTCTAGCGCTAGTGATGTGTGGGCCTTTGGAGT  1794
Sbjct                 3960  ............................................................  4019

CDS:tyrosine-protein  531     T  L  W  E  L  M  T  L  G  Q  T  P  Y  V  D  I  D  P  F  E
Query                 1795  GACGCTGTGGGAACTCATGACTCTGGGCCAGACTCCCTACGTGGACATTGACCCCTTCGA  1854
Sbjct                 4020  ............................................................  4079

CDS:tyrosine-protein  551     M  A  A  Y  L  K  D  G  Y  R  I  A  Q  P  I  N  C  P  D  E
Query                 1855  GATGGCCGCATACCTGAAAGATGGTTACCGAATAGCCCAGCCAATCAACTGTCCTGATGA  1914
Sbjct                 4080  ............................................................  4139

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Query                 1915  ATTATTTGCTGTGATGGCCTGTTGCTGGGCCTTAGATCCAGAGGAGAGGCCCAAGTTTCA  1974
Sbjct                 4140  ............................................................  4199

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Sbjct                 4260  ............................................................  4319

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Sbjct                 4380  ............................................................  4439

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Sbjct                 4440  ............................................................  4499
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1575 C>T (A457V)

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Sbjct  4560  ............................................................  4619

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Sbjct  4620  ............................................................  4679

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Sbjct  4860  ............................................................  4919

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Sbjct  4920  ............................................................  4979

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Sbjct  5040  ............................................................  5099

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Query  2995  AAGTATAAAATTGTTTTTTAAACACTTGAAAAATTAAAGGATTTGTTTTATATTA  3049
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