NRCD Human Full-Length cDNA Clone

Gene Engineering Division
RIKEN BioResource Research Center

## RIKEN Clone ID : ARe98D09

Lot# : 7672_B4Lb

Vector : pKA1U5

| Gene | MFGE8 | |
|---|---|---|
| RefSeq_mRNA | NM_005928.4 | 1936 bp |

### ● Plasmid DNA purification

Date : 2024/12/17 Culture : LB (100 ug/ml Ampicillin) 5 ml -> at 37 deg C O/N

Date : 2024/12/18 Purification : QIAGEN Miniprep kit -> $dH_2O$ 100 ul

### ● Digestion by restriction enzyme/Concentrarion calibration

Date : 2024/12/18

DNA concentration (O.D.): 458 ng/ul

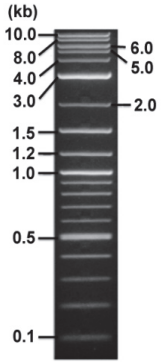
< Size of fragment expected from this clone >

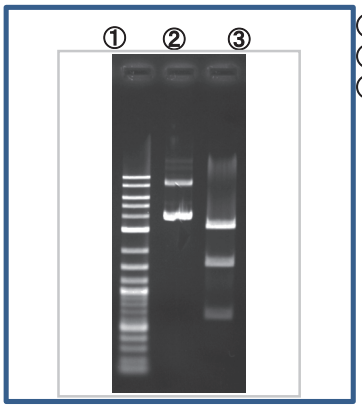
| | | |
|---|---|---|
| DNA | 0.2 | ul |
| Enzyme (BamHI ) | 1 | ul |
| Buffer H | 1 | ul |
| $dH_2O$ | 7.8 | ul |
| Total | 10 | ul |

BamHI 3.1kb (vector), 1.6, 0.6 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 : 2024/12/20

| full sequence | ARe98D09hts01.seq |
|---|---|
| | |
| | |

### ● Adjust plasmid DNA solution to 25 ng/ul

Date : 2025/01/21

| | | |
|---|---|---|
| DNA ( 458 ng/ul) | 84 | ul |
| 10x TE | 154 | ul |
| $dH_2O$ | 1,301 | ul |
| Total | 1,539 | ul |

### ● Shipping

☑ Conc. : 25 ng/μl, Volume : 40 μl

☐ Conc. : __ ng/μl, Volume : __ μl

APPROVED BY :

検 '25.01.21 笹沼

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


ARe98D09hts01.seq
5339 bp
5000
ori
AmpR
1000
AmpR promoter
f1 ori
M13 rev
SV40 ori
SV40 promoter
SV40 intron
2000
BamHI (2116)
M13 fwd
T7 promoter
5' terminal sequence
ORF
insert
3000
(2756) BamHI
4000
(4318) BamHI
T3 promoter
SV40 poly(A) signal

# BLAST Results

Questions/comments

## Blast 2 sequences

**Job title: ref|NM_005928.4|**

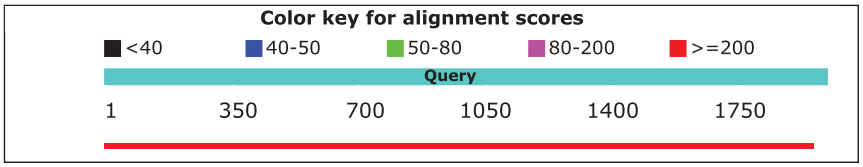
**RID** PA84VG64114 (Expires on 12-21 14:45 pm)

| | | | |
|---|---|---|---|
| **Query ID** | NM_005928.4 | **Subject ID** | lcl\|Query_5792165 |
| **Description** | Homo sapiens milk fat globule EGF and factor V/VIII domain containing (MFGE8), transcript variant 1, mRNA | **Description** | None<br>See details |
| **Molecule type** | nucleic acid | **Molecule type** | dna |
| **Query Length** | 1936 | **Subject Length** | 5339 |
| | | **Program** | BLASTN 2.16.1+ |

ARe98D09hts01.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 | 3559 | 3559 | 100% | 0.0 | 99.85% | Query_5792165 |

## Alignments

Sequence ID: Query_5792165 Length: 5339 Number of Matches: 1
Range 1: 2317 to 4252

| Score | Expect | Identities | Gaps | Strand | Frame |
|---|---|---|---|---|---|
| 3559 bits(1927) | 0.0() | 1933/1936(99%) | 0/1936(0%) | Plus/Plus | |

Features:

```
Query              1     AGAACCCCGCGGGGTCTGAGCAGCCCAGCGTGCCCATTCCAgcgcccgcgtccccgcagc  60
Sbjct              2317  ............................................................  2376

CDS:lactadherin isof 1     M  P  R  P  R  L  L  A  A  L  C  G  A  L  L  C  A  P  S  L
Query              61    atgccgcgcccccgcctgctggccgcgctgtgcggcgcgctgctctgcgccccAGCCTC  120
Sbjct              2377  ............................................................  2436

CDS:lactadherin isof 21    L  V  A  L  D  I  C  S  K  N  P  C  H  N  G  G  L  C  E  E
Query              121   CTCGTCGCCCTGGATATCTGTTCCAAAAACCCCTGCCACAACGGTGGTTTATGCGAGGAG  180
Sbjct              2437  ............................................................  2496

CDS:lactadherin isof 41    I  S  Q  E  V  R  G  D  V  F  P  S  Y  T  C  T  C  L  K  G
Query              181   ATTTCCCAAGAAGTGCGAGGAGATGTCTTCCCCTCGTACACCTGCACGTGCCTTAAGGGC  240
Sbjct              2497  ............................................................  2556

CDS:lactadherin isof 61    Y  A  G  N  H  C  E  T  K  C  V  E  P  L  G  L  E  N  G  N
Query              241   TACGCGGGCAACCACTGTGAGACGAAATGTGTCGAGCCACTGGGCCTGGAGAATGGGAAC  300
Sbjct              2557  .............................................A..............  2616

CDS:lactadherin isof 81    I  A  N  S  Q  I  A  A  S  S  V  R  V  T  F  L  G  L  Q  H
Query              301   ATTGCCAACTCACAGATCGCCGCCTCGTCTGTGCGTGTGACCTTCTTGGGTTTGCAGCAT  360
Sbjct              2617  ..........................A.................................  2676
```

286 C>A (L76M)

327 G>A

```
CDS:lactadherin isof  101   W  V  P  E  L  A  R  L  N  R  A  G  M  V  N  A  W  T  P  S
Query                 361   TGGGTCCCGGAGCTGGCCCGCCTGAACCGCGCAGGCATGGTCAATGCCTGGACACCCAGC  420
Sbjct                 2677  ............................................................  2736

CDS:lactadherin isof  121   S  N  D  D  N  P  W  I  Q  V  N  L  L  R  R  M  W  V  T  G
Query                 421   AGCAATGACGATAACCCCTGGATCCAGGTGAACCTGCTGCGGAGGATGTGGGTAACAGGT  480
Sbjct                 2737  ............................................................  2796

CDS:lactadherin isof  141   V  V  T  Q  G  A  S  R  L  A  S  H  E  Y  L  K  A  F  K  V
Query                 481   GTGGTGACGCAGGGTGCCAGCCGCTTGGCCAGTCATGAGTACCTGAAGGCCTTCAAGGTG  540
Sbjct                 2797  ............................................................  2856

CDS:lactadherin isof  161   A  Y  S  L  N  G  H  E  F  D  F  I  H  D  V  N  K  K  H  K
Query                 541   GCCTACAGCCTTAATGGACACGAATTCGATTTCATCCATGATGTTAATAAAAAACACAAG  600
Sbjct                 2857  ............................................................  2916

CDS:lactadherin isof  181   E  F  V  G  N  W  N  K  N  A  V  H  V  N  L  F  E  T  P  V
Query                 601   GAGTTTGTGGGTAACTGGAACAAAAACGCGGTGCATGTCAACCTGTTTGAGACCCCTGTG  660
Sbjct                 2917  ............................................................  2976

CDS:lactadherin isof  201   E  A  Q  Y  V  R  L  Y  P  T  S  C  H  T  A  C  T  L  R  F
Query                 661   GAGGCTCAGTACGTGAGATTGTACCCCACGAGCTGCCACACGGCCTGCACTCTGCGCTTT  720
Sbjct                 2977  ............................................................  3036

CDS:lactadherin isof  221   E  L  L  G  C  E  L  N  G  C  A  N  P  L  G  L  K  N  N  S
Query                 721   GAGCTACTGGGCTGTGAGCTGAACGGATGCGCCAATCCCCTGGGCCTGAAGAATAACAGC  780
Sbjct                 3037  ............................................................  3096

CDS:lactadherin isof  241   I  P  D  K  Q  I  T  A  S  S  S  Y  K  T  W  G  L  H  L  F
Query                 781   ATCCCTGACAAGCAGATCACGGCCTCCAGCAGCTACAAGACCTGGGGCTTGCATCTCTTC  840
Sbjct                 3097  ............................................................  3156

CDS:lactadherin isof  261   S  W  N  P  S  Y  A  R  L  D  K  Q  G  N  F  N  A  W  V  A
Query                 841   AGCTGGAACCCCTCCTATGCACGGCTGGACAAGCAGGGCAACTTCAACGCCTGGGTTGCG  900
Sbjct                 3157  ............................................................  3216

CDS:lactadherin isof  281   G  S  Y  G  N  D  Q  W  L  Q  V  D  L  G  S  S  K  E  V  T
Query                 901   GGGAGCTACGGTAACGATCAGTGGCTGCAGGTGGACCTGGGCTCCTCGAAGGAGGTGACA  960
Sbjct                 3217  ............................................................  3276

CDS:lactadherin isof  301   G  I  I  T  Q  G  A  R  N  F  G  S  V  Q  F  V  A  S  Y  K
Query                 961   GGCATCATCACCCAGGGGGCCCGTAACTTTGGCTCTGTCCAGTTTGTGGCATCCTACAAG  1020
Sbjct                 3277  ............................................................  3336

CDS:lactadherin isof  321   V  A  Y  S  N  D  S  A  N  W  T  E  Y  Q  D  P  R  T  G  S
Query                 1021  GTTGCCTACAGTAATGACAGTGCGAACTGGACTGAGTACCAGGACCCCAGGACTGGCAGC  1080
Sbjct                 3337  ............................................................  3396

CDS:lactadherin isof  341   S  K  I  F  P  G  N  W  D  N  H  S  H  K  K  N  L  F  E  T
Query                 1081  AGTAAGATCTTCCCTGGCAACTGGGACAACCACTCCCACAAGAAGAACTTGTTTGAGACG  1140
Sbjct                 3397  ............................................................  3456

CDS:lactadherin isof  361   P  I  L  A  R  Y  V  R  I  L  P  V  A  W  H  N  R  I  A  L
Query                 1141  CCCATCCTGGCTCGCTATGTGCGCATCCTGCCTGTAGCCTGGCACAACCGCATCGCCCTG  1200
Sbjct                 3457  ............................................................  3516

CDS:lactadherin isof  381   R  L  E  L  L  G  C
Query                 1201  CGCCTGGAGCTGCTGGGCTGTTAGTGGCCACCTGCCACCCCCAGGTCTTCCTGCTTTCCA  1260
Sbjct                 3517  ............................................................  3576

Query                 1261  TGGGCCCGCTGCCTCTTGGCTTCTCAGCCCCTTTAAATCACCATAGGGCTGGGGACTGGG  1320
Sbjct                 3577  ............................................................  3636

Query                 1321  GAAGGGGAGGGTGTTCAGAGGCAGCACCACCACACAGTcacccctccctccctctttccc  1380
Sbjct                 3637  ............................................................  3696

Query                 1381  accctccacctctcacgggccctgccccagcccctaagccccgtcccctaacccccAGTC  1440
Sbjct                 3697  ..........C.................................................  3756

Query                 1441  CTCACTGTCCTGTTTTCTTAGGCACTGAGGGATCTGAGTAGGTCTGGGATGGACAGGAAA  1500
Sbjct                 3757  ............................................................  3816

Query                 1501  GGGCAAAGTAGGGCGTGTGGTTTCCCTGCCCCTGTCCGGACCGCCGATCCCAGGTGCGTG  1560
Sbjct                 3817  ............................................................  3876

Query                 1561  TGTCTCTGTCTCTCCTAGCCCCTCTCTCACACATCACATTCCCATGGTGGCCTCAAGAAA  1620
Sbjct                 3877  ............................................................  3936

Query                 1621  GGCCCGGAAGCGCCAGGCTGGAGATAACAGCCTCTTGCCCGTCGGCCCTGCGTCGGCCCT  1680
Sbjct                 3937  ............................................................  3996

Query                 1681  GGGGTACCATGTGGCCACAACTGCTGTGGCCCCCTGTCCCCAAGACACTTCCCCTTGTCT  1740
Sbjct                 3997  ............................................................  4056

Query                 1741  CCCTGGTTGCCTCTCTTGCCCCTTGTCCTGAAGCCCAGCGACACAGAAGGGGGTGGGGCG  1800
Sbjct                 4057  ............................................................  4116

Query                 1801  GGTCTATGGGGAGAAAGGGAGCGAGGTCAGAGGAGGGCATGGGTTGGCAGGGTGGGCGTT  1860
Sbjct                 4117  ............................................................  4176

Query                 1861  TGGGGCCCTCTATGCTGGCTTTTCACCCCAGAGGACACAGGCAGCTTCCAAAATATATTT  1920
Sbjct                 4177  ............................................................  4236

Query                 1921  ATCTTCTTCACGGGAA  1936
Sbjct                 4237  ................  4252
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