

[BLAST®](#) » [blastn suite](#) » RID-ZZN22EJY01R

**BLAST Results**

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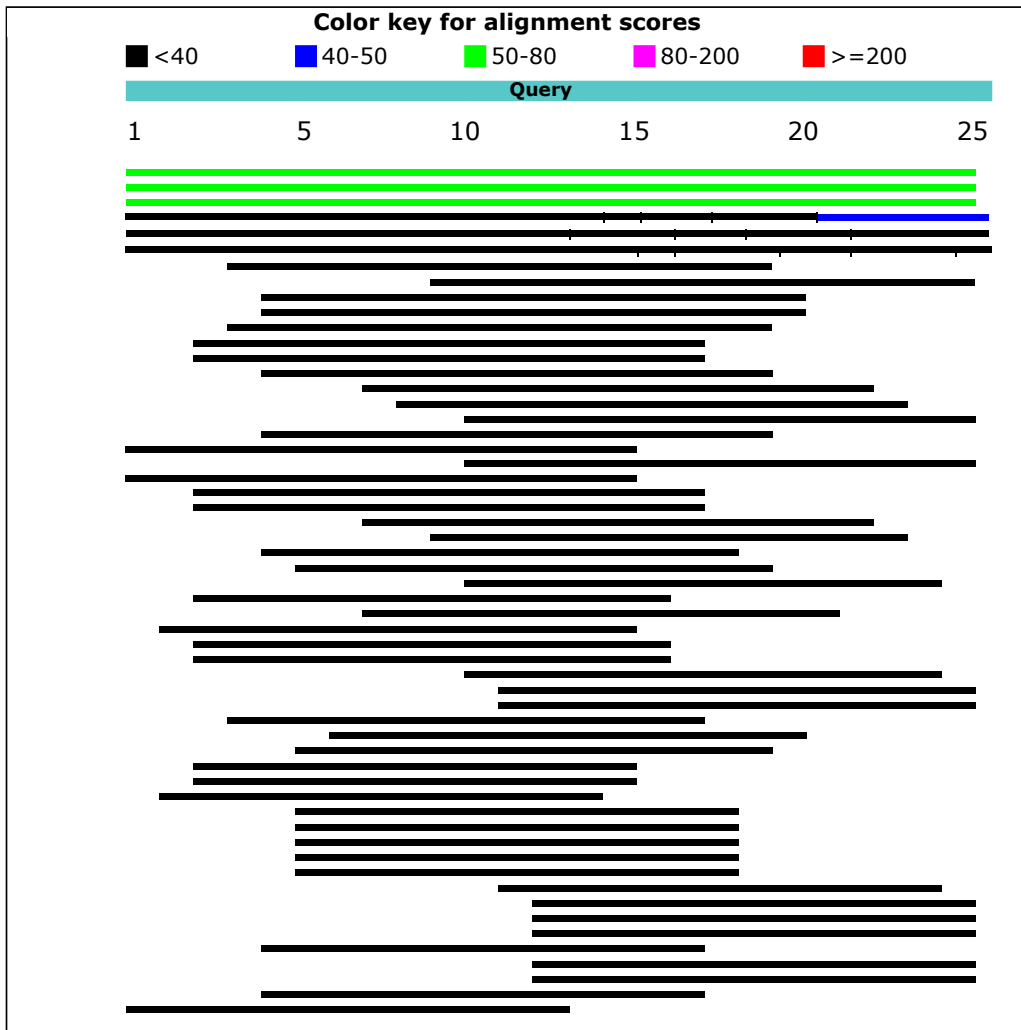
**Job title: Nucleotide Sequence (25 letters)**

**RID** [ZZN22EJY01R](#) (Expires on 11-30 18:57 pm)

|                      |                 |                      |                              |
|----------------------|-----------------|----------------------|------------------------------|
| <b>Query ID</b>      | Icl Query_15267 | <b>Database Name</b> | Human G+T (2 databases)      |
| <b>Description</b>   | None            | <b>Description</b>   | <b>Program</b> BLASTN 2.8.1+ |
| <b>Molecule type</b> | nucleic acid    |                      |                              |
| <b>Query Length</b>  | 25              |                      |                              |

**Graphic Summary**

**Distribution of the top 200 Blast Hits on 100 subject sequences**



## Descriptions

Sequences producing significant alignments:

| Description  | Max score | Total score | Query cover | E value | Ident | Accession                      |
|--|-----------|-------------|-------------|---------|-------|--------------------------------|
| Transcripts  |           |             |             |         |       |                                |
| Homo sapiens eukaryotic translation initiation factor 4 gamma 2 (EIF4G2), transcript variant 3, mRNA         | 50.1      | 50.1        | 100%        | 2e-05   | 100%  | <a href="#">NM_001172705.1</a> |
| Homo sapiens eukaryotic translation initiation factor 4 gamma 2 (EIF4G2), transcript variant 1, mRNA         | 50.1      | 50.1        | 100%        | 2e-05   | 100%  | <a href="#">NM_001418.3</a>    |
| Homo sapiens eukaryotic translation initiation factor 4 gamma 2 (EIF4G2), transcript variant 2, mRNA         | 50.1      | 50.1        | 100%        | 2e-05   | 100%  | <a href="#">NM_001042559.2</a> |
| PREDICTED: Homo sapiens uncharacterized LOC107987115 (LOC107987115), ncRNA                                   | 30.2      | 30.2        | 60%         | 21      | 100%  | <a href="#">XR_001746892.1</a> |
| PREDICTED: Homo sapiens lysine demethylase 3B (KDM3B), transcript variant X2, mRNA                           | 30.2      | 30.2        | 60%         | 21      | 100%  | <a href="#">XM_011543489.2</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105373397 (LOC105373397), ncRNA                                   | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">XR_001739259.2</a> |
| PREDICTED: Homo sapiens long intergenic non-protein coding RNA 345 (LINC00345), transcript variant X3, ncRNA | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">XR_002957523.1</a> |
| Homo sapiens chromosome 10 open reading frame 53 (C10orf53), transcript variant 1, mRNA                      | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">NM_182554.3</a>    |
| Homo sapiens chromosome 10 open reading frame 53 (C10orf53), transcript variant 2, mRNA                      | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">NM_001042427.2</a> |
| Homo sapiens DAPK1 intronic transcript 1 (DAPK1-IT1), long non-coding RNA                                    | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">NR_146781.1</a>    |
| Homo sapiens purine rich element binding protein G (PURG), transcript variant C, mRNA                        | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">NM_001323311.1</a> |
| Homo sapiens purine rich element binding protein G (PURG), transcript variant A, mRNA                        | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">NM_013357.2</a>    |
| PREDICTED: Homo sapiens macrophage scavenger receptor 1 (MSR1), transcript variant X2, mRNA                  | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_024447161.1</a> |
| PREDICTED: Homo sapiens macrophage scavenger receptor 1 (MSR1), transcript variant X1, mRNA                  | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_024447160.1</a> |
| PREDICTED: Homo sapiens armadillo repeat containing 12 (ARMC12), transcript variant X1, mRNA                 | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017010435.2</a> |
| PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X7, mRNA       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_011524192.3</a> |
| PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X5, misc_RNA   | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001752401.2</a> |
| PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X4, misc_RNA   | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_002957946.1</a> |

| Description   | Max score | Total score | Query cover | E value | Ident | Accession                      |
|---|-----------|-------------|-------------|---------|-------|--------------------------------|
| PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X3, misc_RNA          | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_002957945.1</a> |
| PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X2, misc_RNA          | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_002957944.1</a> |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X3, mRNA                         | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017020381.2</a> |
| PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X13, mRNA                                       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_024448680.1</a> |
| PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X10, mRNA                                       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017018249.2</a> |
| Homo sapiens methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2 like (MTHFD2L), transcript variant 7, mRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NM_001351329.1</a> |
| Homo sapiens DnaJ heat shock protein family (Hsp40) member C21 (DNAJC21), transcript variant 3, mRNA                | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NM_001348420.1</a> |
| Homo sapiens splicing factor 1 (SF1), transcript variant 7, mRNA  | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NM_001346409.1</a> |
| Homo sapiens splicing factor 1 (SF1), transcript variant 5, mRNA  | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NM_001178031.2</a> |
| PREDICTED: Homo sapiens DnaJ heat shock protein family (Hsp40) member C21 (DNAJC21), transcript variant X1, mRNA    | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_011513965.2</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X6, ncRNA                   | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001741934.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X5, ncRNA                   | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001741933.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X4, ncRNA                   | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001741932.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X3, ncRNA                   | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001741931.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X1, ncRNA                   | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001741930.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105371082 (LOC105371082), transcript variant X1, ncRNA                   | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_933073.2</a>    |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X11, mRNA                        | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_005266250.3</a> |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X10, mRNA                        | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_005266249.3</a> |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X9, mRNA                         | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017020383.1</a> |

| Description   | Max score | Total score | Query cover | E value | Ident | Accession                      |
|---|-----------|-------------|-------------|---------|-------|--------------------------------|
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X8, mRNA       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017020382.1</a> |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X7, mRNA       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_005266248.3</a> |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X5, mRNA       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_011534906.2</a> |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X1, mRNA       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_011534903.2</a> |
| PREDICTED: Homo sapiens uncharacterized LOC107984457 (LOC107984457), ncRNA                        | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001749428.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105378256 (LOC105378256), ncRNA                        | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_945331.2</a>    |
| PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X8, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001749299.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X6, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_945302.2</a>    |
| PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X5, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_945301.2</a>    |
| PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X4, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_945300.2</a>    |
| PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X3, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_945299.2</a>    |
| PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X2, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001749298.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X1, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_001749297.1</a> |
| PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X12, mRNA                     | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017018251.1</a> |
| PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X11, mRNA                     | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017018250.1</a> |
| PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X6, mRNA                      | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017018245.1</a> |
| PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X1, mRNA                      | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017018244.1</a> |
| PREDICTED: Homo sapiens translation initiation factor IF-2-like (LOC107985115), mRNA              | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_017003072.1</a> |
| PREDICTED: Homo sapiens uncharacterized LOC105370550 (LOC105370550), transcript variant X6, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_943987.1</a>    |

| Description   | Max score | Total score | Query cover | E value | Ident | Accession                      |
|---|-----------|-------------|-------------|---------|-------|--------------------------------|
| PREDICTED: Homo sapiens uncharacterized LOC105370550 (LOC105370550), transcript variant X1, ncRNA | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XR_943980.1</a>    |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X4, mRNA       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_011534905.1</a> |
| PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X2, mRNA       | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_011534904.1</a> |
| PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X2, mRNA                      | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">XM_011545244.1</a> |
| Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant 3, mRNA        | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NM_001288986.1</a> |
| Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant 2, mRNA        | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NM_007168.3</a>    |
| Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant 1, mRNA        | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NM_001288985.1</a> |
| Genomic sequences[<br><a href="#">show first</a><br>]   |           |             |             |         |       |                                |
| Homo sapiens chromosome 11, GRCh38.p12 Primary Assembly   | 40.1      | 874         | 100%        | 0.022   | 100%  | <a href="#">NC_000011.10</a>   |
| Homo sapiens chromosome 13, GRCh38.p12 Primary Assembly   | 36.2      | 789         | 100%        | 0.34    | 100%  | <a href="#">NC_000013.11</a>   |
| Homo sapiens chromosome 8, GRCh38.p12 Primary Assembly  | 34.2      | 1187        | 100%        | 1.4     | 100%  | <a href="#">NC_000008.11</a>   |
| Homo sapiens chromosome 1, GRCh38.p12 Primary Assembly  | 32.2      | 1874        | 100%        | 5.4     | 100%  | <a href="#">NC_000001.11</a>   |
| Homo sapiens chromosome 5, GRCh38.p12 Primary Assembly  | 32.2      | 1476        | 100%        | 5.4     | 100%  | <a href="#">NC_000005.10</a>   |
| Homo sapiens chromosome 6, GRCh38.p12 Primary Assembly  | 32.2      | 1536        | 100%        | 5.4     | 100%  | <a href="#">NC_000006.12</a>   |
| Homo sapiens chromosome 9, GRCh38.p12 Primary Assembly  | 32.2      | 1067        | 96%         | 5.4     | 100%  | <a href="#">NC_000009.12</a>   |
| Homo sapiens chromosome 2, GRCh38.p12 Primary Assembly  | 32.2      | 1865        | 100%        | 5.4     | 100%  | <a href="#">NC_000002.12</a>   |
| Homo sapiens chromosome 12 genomic patch of type FIX, GRCh38.p12 PATCHES HG23_PATCH               | 30.2      | 30.2        | 60%         | 21      | 100%  | <a href="#">NW_009646204.1</a> |
| Homo sapiens chromosome 3, GRCh38.p12 Primary Assembly  | 30.2      | 1320        | 100%        | 21      | 100%  | <a href="#">NC_000003.12</a>   |
| Homo sapiens chromosome 10, GRCh38.p12 Primary Assembly   | 30.2      | 1086        | 100%        | 21      | 100%  | <a href="#">NC_000010.11</a>   |
| Homo sapiens chromosome 18, GRCh38.p12 Primary Assembly   | 30.2      | 407         | 96%         | 21      | 100%  | <a href="#">NC_000018.10</a>   |
| Homo sapiens chromosome 19, GRCh38.p12 Primary Assembly   | 30.2      | 137         | 92%         | 21      | 100%  | <a href="#">NC_000019.10</a>   |
| Homo sapiens chromosome 20, GRCh38.p12 Primary Assembly   | 30.2      | 377         | 100%        | 21      | 100%  | <a href="#">NC_000020.11</a>   |
| Homo sapiens chromosome X, GRCh38.p12 Primary Assembly  | 30.2      | 1207        | 100%        | 21      | 100%  | <a href="#">NC_000023.11</a>   |
| Homo sapiens chromosome 4, GRCh38.p12 Primary Assembly  | 30.2      | 1322        | 100%        | 21      | 100%  | <a href="#">NC_000004.12</a>   |
| Homo sapiens chromosome 12, GRCh38.p12 Primary Assembly   | 30.2      | 1007        | 100%        | 21      | 100%  | <a href="#">NC_000012.12</a>   |
| Homo sapiens chromosome 14, GRCh38.p12 Primary Assembly   | 30.2      | 670         | 100%        | 21      | 100%  | <a href="#">NC_000014.9</a>    |

| Description  | Max score | Total score | Query cover | E value | Ident | Accession                      |
|--|-----------|-------------|-------------|---------|-------|--------------------------------|
| Homo sapiens chromosome 17, GRCh38.p12 Primary Assembly  | 30.2      | 722         | 100%        | 21      | 100%  | <a href="#">NC_000017.11</a>   |
| Homo sapiens chromosome 3 genomic patch of type FIX, GRCh38.p12 PATCHES HG2236_PATCH                             | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">NW_017363813.1</a> |
| Homo sapiens chromosome 7, GRCh38.p12 Primary Assembly   | 28.2      | 1171        | 100%        | 84      | 100%  | <a href="#">NC_000007.14</a>   |
| Homo sapiens chromosome 15, GRCh38.p12 Primary Assembly  | 28.2      | 664         | 100%        | 84      | 100%  | <a href="#">NC_000015.10</a>   |
| Homo sapiens chromosome 21, GRCh38.p12 Primary Assembly  | 28.2      | 319         | 96%         | 84      | 100%  | <a href="#">NC_000021.9</a>    |
| Homo sapiens chromosome 16 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_1 HSCHR16_1_CTG1      | 28.2      | 28.2        | 56%         | 84      | 100%  | <a href="#">NT_187607.1</a>    |
| Homo sapiens chromosome 16, GRCh38.p12 Primary Assembly  | 28.2      | 610         | 100%        | 84      | 100%  | <a href="#">NC_000016.10</a>   |
| Homo sapiens chromosome 22, GRCh38.p12 Primary Assembly  | 28.2      | 216         | 96%         | 84      | 100%  | <a href="#">NC_000022.11</a>   |
| Homo sapiens chromosome 17 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_1 HSCHR17_7_CTG4      | 28.2      | 54.5        | 56%         | 84      | 100%  | <a href="#">NT_187614.1</a>    |
| Homo sapiens chromosome Y, GRCh38.p12 Primary Assembly   | 26.3      | 157         | 88%         | 332     | 100%  | <a href="#">NC_000024.10</a>   |
| Homo sapiens chromosome 6 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_7 HSCHR6_MHC_SSTO_CTG1 | 26.3      | 26.3        | 68%         | 332     | 94%   | <a href="#">NT_167249.2</a>    |
| Homo sapiens chromosome 6 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_6 HSCHR6_MHC_QBL_CTG1  | 26.3      | 26.3        | 68%         | 332     | 94%   | <a href="#">NT_167248.2</a>    |
| Homo sapiens chromosome 6 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_4 HSCHR6_MHC_MANN_CTG1 | 26.3      | 26.3        | 68%         | 332     | 94%   | <a href="#">NT_167246.2</a>    |
| Homo sapiens chromosome 6 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_3 HSCHR6_MHC_DBB_CTG1  | 26.3      | 26.3        | 68%         | 332     | 94%   | <a href="#">NT_167245.2</a>    |
| Homo sapiens chromosome 6 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_2 HSCHR6_MHC_COX_CTG1  | 26.3      | 26.3        | 68%         | 332     | 94%   | <a href="#">NT_113891.3</a>    |
| Homo sapiens chromosome 12 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_2 HSCHR12_3_CTG2      | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NT_187658.1</a>    |
| Homo sapiens chromosome 6 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_1 HSCHR6_MHC_APD_CTG1  | 26.3      | 26.3        | 68%         | 332     | 94%   | <a href="#">NT_167244.2</a>    |
| Homo sapiens chromosome 11 genomic scaffold, GRCh38.p12 alternate locus group ALT_REF_LOCI_1 HSCHR11_1_CTG2      | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NT_187581.1</a>    |

| Description   | Max score | Total score | Query cover | E value | Ident | Accession                   |
|---|-----------|-------------|-------------|---------|-------|-----------------------------|
| Homo sapiens chromosome 14 unlocalized genomic scaffold, GRCh38.p12 Primary Assembly HSCHR14_CTG1_UNLOCALIZED | 26.3      | 26.3        | 52%         | 332     | 100%  | <a href="#">NT_113796.3</a> |

## Alignments

Homo sapiens eukaryotic translation initiation factor 4 gamma 2 (EIF4G2), transcript variant 3, mRNA  
Sequence ID: **NM\_001172705.1** Length: 4028 Number of Matches: 1  
Range 1: 1341 to 1365

| Score         | Expect  | Identities  | Gaps     | Strand    | Frame |
|---------------|---------|-------------|----------|-----------|-------|
| 50.1 bits(25) | 2e-05() | 25/25(100%) | 0/25(0%) | Plus/Plus |       |

Features:

```
Query 1      AGCCAAGTCCTTAATGGATCAGTAC 25
Sbjct 1341   AGCCAAGTCCTTAATGGATCAGTAC 1365
```

Homo sapiens eukaryotic translation initiation factor 4 gamma 2 (EIF4G2), transcript variant 1, mRNA  
Sequence ID: **NM\_001418.3** Length: 3911 Number of Matches: 1  
Range 1: 1224 to 1248

| Score         | Expect  | Identities  | Gaps     | Strand    | Frame |
|---------------|---------|-------------|----------|-----------|-------|
| 50.1 bits(25) | 2e-05() | 25/25(100%) | 0/25(0%) | Plus/Plus |       |

Features:

```
Query 1      AGCCAAGTCCTTAATGGATCAGTAC 25
Sbjct 1224   AGCCAAGTCCTTAATGGATCAGTAC 1248
```

Homo sapiens eukaryotic translation initiation factor 4 gamma 2 (EIF4G2), transcript variant 2, mRNA  
Sequence ID: **NM\_001042559.2** Length: 3797 Number of Matches: 1  
Range 1: 1224 to 1248

| Score         | Expect  | Identities  | Gaps     | Strand    | Frame |
|---------------|---------|-------------|----------|-----------|-------|
| 50.1 bits(25) | 2e-05() | 25/25(100%) | 0/25(0%) | Plus/Plus |       |

Features:

```
Query 1      AGCCAAGTCCTTAATGGATCAGTAC 25
Sbjct 1224   AGCCAAGTCCTTAATGGATCAGTAC 1248
```

PREDICTED: Homo sapiens uncharacterized LOC107987115 (LOC107987115), ncRNA  
Sequence ID: **XR\_001746892.1** Length: 2828 Number of Matches: 1  
Range 1: 404 to 418

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 30.2 bits(15) | 21()   | 15/15(100%) | 0/15(0%) | Plus/Minus |       |

Features:

```
Query 1      AGCCAAGTCCTTAAT 15
Sbjct 418    AGCCAAGTCCTTAAT 404
```

PREDICTED: Homo sapiens lysine demethylase 3B (KDM3B), transcript variant X2, mRNA  
Sequence ID: **XM\_011543489.2** Length: 6987 Number of Matches: 1  
Range 1: 504 to 518

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 30.2 bits(15) | 21()   | 15/15(100%) | 0/15(0%) | Plus/Minus |       |

Features:

Query 11 TTAATGGATCAGTAC 25  
 Sbjct 518 TTAATGGATCAGTAC 504

PREDICTED: Homo sapiens uncharacterized LOC105373397 (LOC105373397), ncRNA  
 Sequence ID: **XR\_001739259.2** Length: 4099 Number of Matches: 1  
 Range 1: 751 to 764

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

Query 8 TCCTTAATGGATCA 21  
 Sbjct 764 TCCTTAATGGATCA 751

PREDICTED: Homo sapiens long intergenic non-protein coding RNA 345 (LINC00345), transcript variant X3, ncRNA  
 Sequence ID: **XR\_002957523.1** Length: 1175 Number of Matches: 1  
 Range 1: 309 to 322

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

Query 2 GCCAAGTCCTTAAT 15  
 Sbjct 322 GCCAAGTCCTTAAT 309

Homo sapiens chromosome 10 open reading frame 53 (C10orf53), transcript variant 1, mRNA  
 Sequence ID: **NM\_182554.3** Length: 2186 Number of Matches: 1  
 Range 1: 266 to 279

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

Query 3 CCAAGTCCTTAATG 16  
 Sbjct 279 CCAAGTCCTTAATG 266

Homo sapiens chromosome 10 open reading frame 53 (C10orf53), transcript variant 2, mRNA  
 Sequence ID: **NM\_001042427.2** Length: 3280 Number of Matches: 1  
 Range 1: 266 to 279

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

Query 3 CCAAGTCCTTAATG 16  
 Sbjct 279 CCAAGTCCTTAATG 266

Homo sapiens DAPK1 intronic transcript 1 (DAPK1-IT1), long non-coding RNA  
 Sequence ID: **NR\_146781.1** Length: 702 Number of Matches: 1  
 Range 1: 441 to 454

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

Query 11 TTAATGGATCAGTA 24  
 Sbjct 454 TTAATGGATCAGTA 441

Homo sapiens purine rich element binding protein G (PURG), transcript variant C, mRNA  
 Sequence ID: **NM\_001323311.1** Length: 2076 Number of Matches: 1



Range 1: 1219 to 1232

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

Query 12 TAATGGATCAGTAC 25  
 Sbjct 1232 TAATGGATCAGTAC 1219

Homo sapiens purine rich element binding protein G (PURG), transcript variant A, mRNA

Sequence ID: **NM\_013357.2** Length: 1972 Number of Matches: 1

Range 1: 1115 to 1128

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

Query 12 TAATGGATCAGTAC 25  
 Sbjct 1128 TAATGGATCAGTAC 1115

PREDICTED: Homo sapiens macrophage scavenger receptor 1 (MSR1), transcript variant X2, mRNA

Sequence ID: **XM\_024447161.1** Length: 1924 Number of Matches: 1

Range 1: 643 to 655

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 3 CCAAGTCCTTAAT 15  
 Sbjct 643 CCAAGTCCTTAAT 655

PREDICTED: Homo sapiens macrophage scavenger receptor 1 (MSR1), transcript variant X1, mRNA

Sequence ID: **XM\_024447160.1** Length: 3675 Number of Matches: 1

Range 1: 645 to 657

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 3 CCAAGTCCTTAAT 15  
 Sbjct 645 CCAAGTCCTTAAT 657

PREDICTED: Homo sapiens armadillo repeat containing 12 (ARMC12), transcript variant X1, mRNA

Sequence ID: **XM\_017010435.2** Length: 2744 Number of Matches: 1

Range 1: 1361 to 1373

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 2 GCCAAGTCCTTAA 14  
 Sbjct 1361 GCCAAGTCCTTAA 1373

PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X7, mRNA

Sequence ID: **XM\_011524192.3** Length: 3494 Number of Matches: 1

Range 1: 257 to 269

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 6 AGTCCTTAATGGA 18  
 Sbjct 257 AGTCCTTAATGGA 269

PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X5, misc\_RNA  
 Sequence ID: **XR\_001752401.2** Length: 6000 Number of Matches: 1  
 Range 1: 257 to 269

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 6 AGTCCTTAATGGA 18  
 Sbjct 257 AGTCCTTAATGGA 269

PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X4, misc\_RNA  
 Sequence ID: **XR\_002957946.1** Length: 7228 Number of Matches: 1  
 Range 1: 257 to 269

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 6 AGTCCTTAATGGA 18  
 Sbjct 257 AGTCCTTAATGGA 269

PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X3, misc\_RNA  
 Sequence ID: **XR\_002957945.1** Length: 9928 Number of Matches: 1  
 Range 1: 257 to 269

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 6 AGTCCTTAATGGA 18  
 Sbjct 257 AGTCCTTAATGGA 269

PREDICTED: Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant X2, misc\_RNA  
 Sequence ID: **XR\_002957944.1** Length: 5910 Number of Matches: 1  
 Range 1: 257 to 269

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 6 AGTCCTTAATGGA 18  
 Sbjct 257 AGTCCTTAATGGA 269

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X3, mRNA  
 Sequence ID: **XM\_017020381.2** Length: 9948 Number of Matches: 1  
 Range 1: 4292 to 4304

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 12 TAATGGATCAGTA 24  
 Sbjct 4292 TAATGGATCAGTA 4304

PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X13, mRNA  
 Sequence ID: **XM\_024448680.1** Length: 2643 Number of Matches: 1

Range 1: 1492 to 1504

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  13  AATGGATCAGTAC  25
      | | | | |
Sbjct 1492 AATGGATCAGTAC 1504

```

PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X10, mRNA

Sequence ID: **XM\_017018249.2** Length: 5206 Number of Matches: 1

Range 1: 3416 to 3428

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  13  AATGGATCAGTAC  25
      | | | | |
Sbjct 3416 AATGGATCAGTAC 3428

```

Homo sapiens methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2 like (MTHFD2L), transcript variant 7, mRNA

Sequence ID: **NM\_001351329.1** Length: 2388 Number of Matches: 1

Range 1: 1754 to 1766

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  13  AATGGATCAGTAC  25
      | | | | |
Sbjct 1754 AATGGATCAGTAC 1766

```

Homo sapiens DnaJ heat shock protein family (Hsp40) member C21 (DNAJC21), transcript variant 3, mRNA

Sequence ID: **NM\_001348420.1** Length: 6122 Number of Matches: 1

Range 1: 3358 to 3370

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  5  AAGTCCTTAATGG  17
      | | | | |
Sbjct 3358 AAGTCCTTAATGG 3370

```

Homo sapiens splicing factor 1 (SF1), transcript variant 7, mRNA

Sequence ID: **NM\_001346409.1** Length: 2873 Number of Matches: 1

Range 1: 1714 to 1726

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  13  AATGGATCAGTAC  25
      | | | | |
Sbjct 1714 AATGGATCAGTAC 1726

```

Homo sapiens splicing factor 1 (SF1), transcript variant 5, mRNA

Sequence ID: **NM\_001178031.2** Length: 3366 Number of Matches: 1

Range 1: 1570 to 1582

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 13 AATGGATCAGTAC 25  
 Sbjct 1570 AATGGATCAGTAC 1582

PREDICTED: Homo sapiens DnaJ heat shock protein family (Hsp40) member C21 (DNAJC21), transcript variant X1, mRNA  
 Sequence ID: **XM\_011513965.2** Length: 6300 Number of Matches: 1  
 Range 1: 3546 to 3558

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 5 AAGTCCTTAATGG 17  
 Sbjct 3546 AAGTCCTTAATGG 3558

PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X6, ncRNA  
 Sequence ID: **XR\_001741934.1** Length: 5699 Number of Matches: 1  
 Range 1: 1318 to 1330

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 1318 AGCCAAGTCCTTA 1330

PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X5, ncRNA  
 Sequence ID: **XR\_001741933.1** Length: 5723 Number of Matches: 1  
 Range 1: 1318 to 1330

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 1318 AGCCAAGTCCTTA 1330

PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X4, ncRNA  
 Sequence ID: **XR\_001741932.1** Length: 5780 Number of Matches: 1  
 Range 1: 1318 to 1330

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 1318 AGCCAAGTCCTTA 1330

PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X3, ncRNA  
 Sequence ID: **XR\_001741931.1** Length: 5783 Number of Matches: 1  
 Range 1: 1318 to 1330

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 1318 AGCCAAGTCCTTA 1330

PREDICTED: Homo sapiens uncharacterized LOC105377576 (LOC105377576), transcript variant X1, ncRNA  
 Sequence ID: **XR\_001741930.1** Length: 6329 Number of Matches: 1

Range 1: 1318 to 1330

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 1318 AGCCAAGTCCTTA 1330

PREDICTED: Homo sapiens uncharacterized LOC105371082 (LOC105371082), transcript variant X1, ncRNA

Sequence ID: **XR\_933073.2** Length: 1399 Number of Matches: 1

Range 1: 288 to 300

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 288 AGCCAAGTCCTTA 300

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X11, mRNA

Sequence ID: **XM\_005266250.3** Length: 5673 Number of Matches: 1

Range 1: 4264 to 4276

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 12 TAATGGATCAGTA 24  
 Sbjct 4264 TAATGGATCAGTA 4276

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X10, mRNA

Sequence ID: **XM\_005266249.3** Length: 5757 Number of Matches: 1

Range 1: 4264 to 4276

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 12 TAATGGATCAGTA 24  
 Sbjct 4264 TAATGGATCAGTA 4276

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X9, mRNA

Sequence ID: **XM\_017020383.1** Length: 9948 Number of Matches: 1

Range 1: 4292 to 4304

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 12 TAATGGATCAGTA 24  
 Sbjct 4292 TAATGGATCAGTA 4304

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X8, mRNA

Sequence ID: **XM\_017020382.1** Length: 9760 Number of Matches: 1

Range 1: 4104 to 4116

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 12 TAATGGATCAGTA 24  
 Sbjct 4104 TAATGGATCAGTA 4116

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X7, mRNA  
 Sequence ID: **XM\_005266248.3** Length: 9813 Number of Matches: 1  
 Range 1: 4157 to 4169

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 12 TAATGGATCAGTA 24  
 Sbjct 4157 TAATGGATCAGTA 4169

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X5, mRNA  
 Sequence ID: **XM\_011534906.2** Length: 10088 Number of Matches: 1  
 Range 1: 4432 to 4444

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 12 TAATGGATCAGTA 24  
 Sbjct 4432 TAATGGATCAGTA 4444

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X1, mRNA  
 Sequence ID: **XM\_011534903.2** Length: 9916 Number of Matches: 1  
 Range 1: 4260 to 4272

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 12 TAATGGATCAGTA 24  
 Sbjct 4260 TAATGGATCAGTA 4272

PREDICTED: Homo sapiens uncharacterized LOC107984457 (LOC107984457), ncRNA  
 Sequence ID: **XR\_001749428.1** Length: 1218 Number of Matches: 1  
 Range 1: 842 to 854

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 4 CAAGTCCTTAATG 16  
 Sbjct 842 CAAGTCCTTAATG 854

PREDICTED: Homo sapiens uncharacterized LOC105378256 (LOC105378256), ncRNA  
 Sequence ID: **XR\_945331.2** Length: 973 Number of Matches: 1  
 Range 1: 106 to 118

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 13 AATGGATCAGTAC 25  
 Sbjct 106 AATGGATCAGTAC 118

PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X8, ncRNA  
 Sequence ID: **XR\_001749299.1** Length: 3382 Number of Matches: 1

Range 1: 1294 to 1306

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  10  CTTAATGGATCAG  22
      | | | | | | | | | |
Sbjct 1294 CTTAATGGATCAG 1306

```

PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X6, ncRNA

Sequence ID: **XR\_945302.2** Length: 2606 Number of Matches: 1

Range 1: 394 to 406

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  10  CTTAATGGATCAG  22
      | | | | | | | | | |
Sbjct 394  CTTAATGGATCAG  406

```

PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X5, ncRNA

Sequence ID: **XR\_945301.2** Length: 2918 Number of Matches: 1

Range 1: 706 to 718

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  10  CTTAATGGATCAG  22
      | | | | | | | | | |
Sbjct 706  CTTAATGGATCAG  718

```

PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X4, ncRNA

Sequence ID: **XR\_945300.2** Length: 3027 Number of Matches: 1

Range 1: 815 to 827

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  10  CTTAATGGATCAG  22
      | | | | | | | | | |
Sbjct 815  CTTAATGGATCAG  827

```

PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X3, ncRNA

Sequence ID: **XR\_945299.2** Length: 3000 Number of Matches: 1

Range 1: 788 to 800

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  10  CTTAATGGATCAG  22
      | | | | | | | | | |
Sbjct 788  CTTAATGGATCAG  800

```

PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X2, ncRNA

Sequence ID: **XR\_001749298.1** Length: 3579 Number of Matches: 1

Range 1: 1367 to 1379

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 10 CTTAATGGATCAG 22  
 Sbjct 1367 CTTAATGGATCAG 1379

PREDICTED: Homo sapiens uncharacterized LOC105369957 (LOC105369957), transcript variant X1, ncRNA  
 Sequence ID: **XR\_001749297.1** Length: 3506 Number of Matches: 1  
 Range 1: 1294 to 1306

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 10 CTTAATGGATCAG 22  
 Sbjct 1294 CTTAATGGATCAG 1306

PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X12, mRNA  
 Sequence ID: **XM\_017018251.1** Length: 3284 Number of Matches: 1  
 Range 1: 1494 to 1506

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 13 AATGGATCAGTAC 25  
 Sbjct 1494 AATGGATCAGTAC 1506

PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X11, mRNA  
 Sequence ID: **XM\_017018250.1** Length: 3429 Number of Matches: 1  
 Range 1: 1639 to 1651

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 13 AATGGATCAGTAC 25  
 Sbjct 1639 AATGGATCAGTAC 1651

PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X6, mRNA  
 Sequence ID: **XM\_017018245.1** Length: 3333 Number of Matches: 1  
 Range 1: 1543 to 1555

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 13 AATGGATCAGTAC 25  
 Sbjct 1543 AATGGATCAGTAC 1555

PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X1, mRNA  
 Sequence ID: **XM\_017018244.1** Length: 3256 Number of Matches: 1  
 Range 1: 1462 to 1474

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 13 AATGGATCAGTAC 25  
 Sbjct 1462 AATGGATCAGTAC 1474

PREDICTED: Homo sapiens translation initiation factor IF-2-like (LOC107985115), mRNA  
 Sequence ID: **XM\_017003072.1** Length: 3834 Number of Matches: 1



Range 1: 1804 to 1816

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  10  CTTAATGGATCAG  22
Sbjct 1804 CTTAATGGATCAG 1816

```

PREDICTED: Homo sapiens uncharacterized LOC105370550 (LOC105370550), transcript variant X6, ncRNA

Sequence ID: **XR\_943987.1** Length: 2410 Number of Matches: 1

Range 1: 230 to 242

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  12  TAATGGATCAGTA  24
Sbjct 230  TAATGGATCAGTA  242

```

PREDICTED: Homo sapiens uncharacterized LOC105370550 (LOC105370550), transcript variant X1, ncRNA

Sequence ID: **XR\_943980.1** Length: 2503 Number of Matches: 1

Range 1: 230 to 242

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  12  TAATGGATCAGTA  24
Sbjct 230  TAATGGATCAGTA  242

```

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X4, mRNA

Sequence ID: **XM\_011534905.1** Length: 9870 Number of Matches: 1

Range 1: 4214 to 4226

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  12  TAATGGATCAGTA  24
Sbjct 4214 TAATGGATCAGTA 4226

```

PREDICTED: Homo sapiens A-kinase anchoring protein 11 (AKAP11), transcript variant X2, mRNA

Sequence ID: **XM\_011534904.1** Length: 10112 Number of Matches: 1

Range 1: 4456 to 4468

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

```

Query  12  TAATGGATCAGTA  24
Sbjct 4456 TAATGGATCAGTA 4468

```

PREDICTED: Homo sapiens splicing factor 1 (SF1), transcript variant X2, mRNA

Sequence ID: **XM\_011545244.1** Length: 2824 Number of Matches: 1

Range 1: 1462 to 1474

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 13 AATGGATCAGTAC 25  
 Sbjct 1462 AATGGATCAGTAC 1474

Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant 3, mRNA  
 Sequence ID: **NM\_001288986.1** Length: 5836 Number of Matches: 1  
 Range 1: 265 to 277

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 6 AGTCCTTAATGGA 18  
 Sbjct 265 AGTCCTTAATGGA 277

Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant 2, mRNA  
 Sequence ID: **NM\_007168.3** Length: 5731 Number of Matches: 1  
 Range 1: 265 to 277

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 6 AGTCCTTAATGGA 18  
 Sbjct 265 AGTCCTTAATGGA 277

Homo sapiens ATP binding cassette subfamily A member 8 (ABCA8), transcript variant 1, mRNA  
 Sequence ID: **NM\_001288985.1** Length: 6012 Number of Matches: 1  
 Range 1: 426 to 438

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

Query 6 AGTCCTTAATGGA 18  
 Sbjct 426 AGTCCTTAATGGA 438

Homo sapiens chromosome 11, GRCh38.p12 Primary Assembly  
 Sequence ID: **NC\_000011.10** Length: 135086622 Number of Matches: 32  
 Range 1: 10803277 to 10803296

| Score         | Expect  | Identities  | Gaps     | Strand     | Frame |
|---------------|---------|-------------|----------|------------|-------|
| 40.1 bits(20) | 0.022() | 20/20(100%) | 0/20(0%) | Plus/Minus |       |

Features:

**eukaryotic translation initiation factor 4 gamma 2 isoform 2**eukaryotic translation initiation factor 4 gamma 2 isoform 1

Query 6 AGTCCTTAATGGATCAGTAC 25  
 Sbjct 10803296 AGTCCTTAATGGATCAGTAC 10803277

Range 2: 4900949 to 4900965

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 34.2 bits(17) | 1.4()  | 17/17(100%) | 0/17(0%) | Plus/Plus |       |

Features:

**18066 bp at 5' side: olfactory receptor 51T16405 bp at 3' side: olfactory receptor 51A7**

Query 8 TCCTTAATGGATCAGTA 24  
 Sbjct 4900949 TCCTTAATGGATCAGTA 4900965

Range 3: 123004143 to 123004157

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 30.2 bits(15) | 21()   | 15/15(100%) | 0/15(0%) | Plus/Minus |       |

Features:

**22472 bp at 5' side: brain-specific homeobox protein homolog53577 bp at 3' side: heat shock cognate 71 kDa protein isoform 2**

Query 7 GTCCTTAATGGATCA 21  
 Sbjct 123004157 GTCCTTAATGGATCA 123004143

Range 4: 58832558 to 58832571

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Plus |       |

Features:

**108062 bp at 5' side: glycine N-acyltransferase isoform b1858 bp at 3' side: glycine N-acyltransferase-like protein 2 isoform X1**

Query 1 AGCCAAGTCCTTAA 14  
 Sbjct 58832558 AGCCAAGTCCTTAA 58832571

Range 5: 110494633 to 110494646

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Plus |       |

Features:

**32165 bp at 5' side: adrenodoxin, mitochondrial precursor84724 bp at 3' side: rho GTPase-activating protein 20 isoform 4**

Query 4 CAAGTCCTTAATGG 17  
 Sbjct 110494633 CAAGTCCTTAATGG 110494646

Range 6: 13108068 to 13108081

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

**96968 bp at 5' side: ras association domain-containing protein 10168944 bp at 3' side: aryl hydrocarbon receptor nuclear translocator-like prote...**

Query 10 CTTAATGGATCAGT 23  
 Sbjct 13108081 CTTAATGGATCAGT 13108068

Range 7: 109815450 to 109815463

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

**391223 bp at 5' side: uncharacterized protein C11orf87 isoform X2277737 bp at 3' side: probable ribonuclease ZC3H12C isoform X1**

Query 10 CTTAATGGATCAGT 23  
 Sbjct 109815463 CTTAATGGATCAGT 109815450

Range 8: 5102631 to 5102643

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**32134 bp at 5' side: olfactory receptor 52E129049 bp at 3' side: olfactory receptor 52A5**

Query 10 CTTAATGGATCAG 22  
 Sbjct 5102631 CTTAATGGATCAG 5102643

Range 9: 6742286 to 6742298

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**58990 bp at 5' side: 39S ribosomal protein L17, mitochondrial25709 bp at 3' side: olfactory receptor 2AG2**

Query 10 CTTAATGGATCAG 22  
 Sbjct 6742286 CTTAATGGATCAG 6742298

Range 10: 15807133 to 15807145

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**101852 bp at 5' side: uncharacterized protein LOC102724957 isoform X1165664 bp at 3' side: transcription factor SOX-6 isoform 3**

Query 4 CAAGTCCTTAATG 16  
 Sbjct 15807133 CAAGTCCTTAATG 15807145

Range 11: 26763789 to 26763801

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**42075 bp at 5' side: sodium-coupled monocarboxylate transporter 2 isoform X4230726 bp at 3' side: fin bud initiation factor homolog precursor**

Query 8 TCCTTAATGGATC 20  
 Sbjct 26763789 TCCTTAATGGATC 26763801

Range 12: 37382844 to 37382856

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**723658 bp at 5' side: uncharacterized protein C11orf74 isoform a2731514 bp at 3' side: leucine-rich repeat-containing protein 4C isoform X1**

Query 4 CAAGTCCTTAATG 16  
 Sbjct 37382844 CAAGTCCTTAATG 37382856

Range 13: 46910169 to 46910181

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**low-density lipoprotein receptor-related protein 4 precursor/low-density lipoprotein receptor-related protein 4 isoform X1**

Query 5 AAGTCCTTAATGG 17  
 Sbjct 46910169 AAGTCCTTAATGG 46910181

Range 14: 47430975 to 47430987

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**4696 bp at 5' side: 26S proteasome regulatory subunit 6A isoform X16800 bp at 3' side: 43 kDa receptor-associated protein of the synapse isoform X1**

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 47430975 AGCCAAGTCCTTA 47430987

Range 15: 49867398 to 49867410

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**658989 bp at 5' side: glutamate carboxypeptidase 2 isoform X585013 bp at 3' side: olfactory receptor 4C13**

Query 4 CAAGTCCTTAATG 16  
 Sbjct 49867398 CAAGTCCTTAATG 49867410

Range 16: 58732811 to 58732823

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**8315 bp at 5' side: glycine N-acyltransferase isoform b101606 bp at 3' side: glycine N-acyltransferase-like protein 2 isoform X1**

Query 10 CTTAATGGATCAG 22  
Sbjct 58732811 CTTAATGGATCAG 58732823

Range 17: 75474387 to 75474399

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**glycerophosphodiester phosphodiesterase domain-containing...glycerophosphodiester phosphodiesterase domain-containing...**

Query 3 CCAAGTCCTTAAT 15  
Sbjct 75474387 CCAAGTCCTTAAT 75474399

Range 18: 93753858 to 93753870

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**ester hydrolase C11orf54 isoform X1ester hydrolase C11orf54 isoform b**

Query 12 TAATGGATCAGTA 24  
Sbjct 93753858 TAATGGATCAGTA 93753870

Range 19: 94208996 to 94209008

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**28127 bp at 5' side: pannexin-1 isoform X196629 bp at 3' side: sperm-egg fusion protein Juno precursor**

Query 9 CCTTAATGGATCA 21  
Sbjct 94208996 CCTTAATGGATCA 94209008

Range 20: 104788029 to 104788041

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**750016 bp at 5' side: protein DDI1 homolog 1156712 bp at 3' side: caspase-4 isoform alpha precursor**

Query 2 GCCAAGTCCTTAA 14  
Sbjct 104788029 GCCAAGTCCTTAA 104788041

Range 21: 107955514 to 107955526

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**ras-related protein Rab-39A**

Query 10 CTTAATGGATCAG 22  
Sbjct 107955514 CTTAATGGATCAG 107955526

Range 22: 121598740 to 121598752

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**sortilin-related receptor preproprotein sortilin-related receptor isoform X1**

Query 2 GCCAAGTCCTTAA 14  
Sbjct 121598740 GCCAAGTCCTTAA 121598752

Range 23: 134071411 to 134071423

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**junctional adhesion molecule C isoform 1 precursor**  
**junctional adhesion molecule C isoform 2 precursor**

Query 11 TTAATGGATCAGT 23  
 Sbjct 134071411 TTAATGGATCAGT 134071423

Range 24: 134922115 to 134922127

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**534456 bp at 5' side: galactosylgalactosylxylosylprotein 3-beta-glucuronosyltra...**

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 134922115 AGCCAAGTCCTTA 134922127

Range 25: 2331034 to 2331046

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:  
**13129 bp at 5' side: tetraspanin-32 isoform X846504 bp at 3' side: CD81 antigen isoform 1**

Query 1 AGCCAAGTCCTTA 13  
 Sbjct 2331046 AGCCAAGTCCTTA 2331034

Range 26: 28149643 to 28149655

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:  
**probable methyltransferase-like protein 15 isoform X1**  
**probable methyltransferase-like protein 15 isoform X4**

Query 8 TCCTTAATGGATC 20  
 Sbjct 28149655 TCCTTAATGGATC 28149643

Range 27: 31902546 to 31902558

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:  
**96135 bp at 5' side: paired box protein Pax-6 isoform c188639 bp at 3' side: reticulocalbin-1 precursor**

Query 10 CTTAATGGATCAG 22  
 Sbjct 31902558 CTTAATGGATCAG 31902546

Range 28: 73043825 to 73043841

| Score         | Expect | Identities | Gaps     | Strand     | Frame |
|---------------|--------|------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 16/17(94%) | 0/17(0%) | Plus/Minus |       |

Features:  
**F-BAR and double SH3 domains protein 2**  
**F-BAR and double SH3 domains protein 2 isoform X1**

Query 4 CAAGTCCTTAATGGATC 20  
 Sbjct 73043841 CAAGTCCTCAATGGATC 73043825

Range 29: 78307466 to 78307478

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:  
**GRB2-associated-binding protein 2 isoform a**  
**GRB2-associated-binding protein 2 isoform X1**

Query 2 GCCAAGTCCTTAA 14  
 Sbjct 78307478 GCCAAGTCCTTAA 78307466

Range 30: 83533788 to 83533800

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:

**disks large homolog 2 isoform X2**

Query 4 CAAGTCCTTAATG 16  
 Sbjct 83533800 CAAGTCCTTAATG 83533788

Range 31: 88784257 to 88784269

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:

**metabotropic glutamate receptor 5 isoform X2**

Query 12 TAATGGATCAGTA 24  
 Sbjct 88784269 TAATGGATCAGTA 88784257

Range 32: 105346366 to 105346378

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:

**206640 bp at 5' side: caspase recruitment domain-containing protein 18**

Query 7 GTCCTTAATGGAT 19  
 Sbjct 105346378 GTCCTTAATGGAT 105346366

Homo sapiens chromosome 13, GRCh38.p12 Primary Assembly

Sequence ID: **NC\_000013.11** Length: 114364328 Number of Matches: 29

Range 1: 93670071 to 93670088

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 36.2 bits(18) | 0.34() | 18/18(100%) | 0/18(0%) | Plus/Minus |       |

Features:

**glypican-6 precursor**

Query 4 CAAGTCCTTAATGGATCA 21  
 Sbjct 93670088 CAAGTCCTTAATGGATCA 93670071

Range 2: 41967183 to 41967197

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 30.2 bits(15) | 21()   | 15/15(100%) | 0/15(0%) | Plus/Plus |       |

Features:

**6168 bp at 5' side: von Willebrand factor A domain-containing protein 8 isofo...**

Query 3 CCAAGTCCTTAATGG 17  
 Sbjct 41967183 CCAAGTCCTTAATGG 41967197

Range 3: 36831797 to 36831811

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 30.2 bits(15) | 21()   | 15/15(100%) | 0/15(0%) | Plus/Minus |       |

Features:

**4044 bp at 5' side: regulatory factor X-associated protein**

Query 2 GCCAAGTCCTTAATG 16  
 Sbjct 36831811 GCCAAGTCCTTAATG 36831797

Range 4: 40068575 to 40068588

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Plus |       |

Features:

**317482 bp at 5' side: conserved oligomeric Golgi complex subunit 6 isoform 1490935 bp at 3' side: forkhead box protein O1**

Query 6 AGTCCTTAATGGAT 19  
 Sbjct 40068575 AGTCCTTAATGGAT 40068588

Range 5: 52600685 to 52600698

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Plus |       |

Features:

**125544 bp at 5' side: cytoskeleton-associated protein 2 isoform X241795 bp at 3' side: heterogeneous nuclear ribonucleoprotein A1-like 2**

Query 2 GCCAAGTCCTTAAT 15  
 Sbjct 52600685 GCCAAGTCCTTAAT 52600698

Range 6: 23209326 to 23209339

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

**gamma-sarcoglycan isoform X1gamma-sarcoglycan isoform X2**

Query 5 AAGTCCTTAATGGA 18  
 Sbjct 23209339 AAGTCCTTAATGGA 23209326

Range 7: 28998746 to 28998759

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

**280748 bp at 5' side: solute carrier family 46 member 3 isoform a precursor25910 bp at 3' side: microtubule-associated tumor suppressor candidate 2 isofo...**

Query 5 AAGTCCTTAATGGA 18  
 Sbjct 28998759 AAGTCCTTAATGGA 28998746

Range 8: 97885183 to 97885196

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 28.2 bits(14) | 84()   | 14/14(100%) | 0/14(0%) | Plus/Minus |       |

Features:

**420741 bp at 5' side: ras-related protein Rap-2a precursor84585 bp at 3' side: importin-5**

Query 6 AGTCCTTAATGGAT 19  
 Sbjct 97885196 AGTCCTTAATGGAT 97885183

Range 9: 29521088 to 29521100

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**high affinity cationic amino acid transporter 1high affinity cationic amino acid transporter 1 isoform X2**

Query 3 CCAAGTCCTTAAT 15  
 Sbjct 29521088 CCAAGTCCTTAAT 29521100

Range 10: 35469452 to 35469464

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**neurobeachin isoform X3neurobeachin isoform 1**

Query 12 TAATGGATCAGTA 24  
 Sbjct 35469452 TAATGGATCAGTA 35469464

Range 11: 39339007 to 39339019



| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**291081 bp at 5' side: NHL repeat-containing protein 3 isoform b4917 bp at 3' side: LHFPL tetraspan subfamily member 6 protein precursor**

Query 3 CCAAGTCCTTAAT 15  
 Sbjct 39339007 CCAAGTCCTTAAT 39339019

Range 12: 42302834 to 42302846

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**A-kinase anchor protein 11 isoform X1A-kinase anchor protein 11 isoform X3**

Query 12 TAATGGATCAGTA 24  
 Sbjct 42302834 TAATGGATCAGTA 42302846

Range 13: 76861325 to 76861337

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**978223 bp at 5' side: LMO7 downstream neighbor protein isoform X123834 bp at 3' side: BTB/POZ domain-containing protein KCTD12**

Query 3 CCAAGTCCTTAAT 15  
 Sbjct 76861325 CCAAGTCCTTAAT 76861337

Range 14: 76984746 to 76984762

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 16/17(94%) | 0/17(0%) | Plus/Plus |       |

Features:  
**26761 bp at 5' side: cis-aconitate decarboxylase7190 bp at 3' side: ceroid-lipofuscinosis neuronal protein 5**

Query 2 GCCAAGTCCTTAATGGA 18  
 Sbjct 76984746 GCCAAGTCCTTTATGGA 76984762

Range 15: 81570671 to 81570683

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**1232966 bp at 5' side: protein sprouty homolog 22308734 bp at 3' side: SLIT and NTRK-like protein 1 precursor**

Query 12 TAATGGATCAGTA 24  
 Sbjct 81570671 TAATGGATCAGTA 81570683

Range 16: 91165182 to 91165202

| Score         | Expect | Identities | Gaps     | Strand    | Frame |
|---------------|--------|------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 19/21(90%) | 0/21(0%) | Plus/Plus |       |

Features:  
**3486917 bp at 5' side: SLIT and NTRK-like protein 5 isoform X1233845 bp at 3' side: glypican-5 isoform X3**

Query 5 AAGTCCTTAATGGATCAGTAC 25  
 Sbjct 91165182 AAGTCATTAATGGAACAGTAC 91165202

Range 17: 102931738 to 102931750

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:  
**55835 bp at 5' side: DNA repair protein complementing XP-G cells114383 bp at 3' side: ileal sodium/bile acid cotransporter**

Query 9 CCTTAATGGATCA 21  
 Sbjct 102931738 CCTTAATGGATCA 102931750

Range 18: 106008722 to 106008734

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**518641 bp at 5' side: D-amino acid oxidase activator isoform 3484306 bp at 3' side: ephrin-B2 precursor**

Query 5 AAGTCCTTAATGG 17  
 Sbjct 106008722 AAGTCCTTAATGG 106008734

Range 19: 108568026 to 108568038

| Score         | Expect | Identities  | Gaps     | Strand    | Frame |
|---------------|--------|-------------|----------|-----------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Plus |       |

Features:

**261088 bp at 5' side: tumor necrosis factor ligand superfamily member 13B isofo...61807 bp at 3' side: unconventional myosin-XVI isoform 1**

Query 13 AATGGATCAGTAC 25  
 Sbjct 108568026 AATGGATCAGTAC 108568038

Range 20: 32332564 to 32332576

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:

**breast cancer type 2 susceptibility protein**

Query 12 TAATGGATCAGTA 24  
 Sbjct 32332576 TAATGGATCAGTA 32332564

Range 21: 39494356 to 39494368

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:

**LHFPL tetraspan subfamily member 6 protein precursorLHFPL tetraspan subfamily member 6 protein isoform X1**

Query 4 CAAGTCCTTAATG 16  
 Sbjct 39494368 CAAGTCCTTAATG 39494356

Range 22: 44792903 to 44792915

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:

**216829 bp at 5' side: TSC22 domain family protein 1 isoform X4148291 bp at 3' side: nuclear fragile X mental retardation-interacting protein 1**

Query 3 CCAAGTCCTTAAT 15  
 Sbjct 44792915 CCAAGTCCTTAAT 44792903

Range 23: 66128159 to 66128171

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

Features:

**2295166 bp at 5' side: keratin-associated protein 21-1176484 bp at 3' side: protocadherin-9 isoform 4 precursor**

Query 2 GCCAAGTCCTTAA 14  
 Sbjct 66128171 GCCAAGTCCTTAA 66128159

Range 24: 75536472 to 75536484

| Score | Expect | Identities | Gaps | Strand | Frame |
|-------|--------|------------|------|--------|-------|
|-------|--------|------------|------|--------|-------|

26.3 bits(13) 332() 13/13(100%) 0/13(0%) Plus/Minus

## Features:

**COMM domain-containing protein 6 isoform a**COMM domain-containing protein 6 isoform b

Query 3 CCAAGTCCTTAAT 15  
Sbjct 75536484 CCAAGTCCTTAAT 75536472

Range 25: 93483004 to 93483016

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

## Features:

**glypican-6 precursor**

Query 1 AGCCAAGTCCTTA 13  
Sbjct 93483016 AGCCAAGTCCTTA 93483004

Range 26: 100212404 to 100212416

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

## Features:

**propionyl-CoA carboxylase alpha chain, mitochondrial isof...**propionyl-CoA carboxylase alpha chain, mitochondrial isof...

Query 10 CTTAATGGATCAG 22  
Sbjct 100212416 CTTAATGGATCAG 100212404

Range 27: 111688507 to 111688523

| Score         | Expect | Identities | Gaps     | Strand     | Frame |
|---------------|--------|------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 16/17(94%) | 0/17(0%) | Plus/Minus |       |

## Features:

**51904 bp at 5' side: uncharacterized protein LOC107983958325638 bp at 3' side: peptidyl-prolyl cis-trans isomerase CYP95-like**

Query 6 AGTCCTTAATGGATCAG 22  
Sbjct 111688523 AGTCCTTCATGGATCAG 111688507

Range 28: 111773778 to 111773794

| Score         | Expect | Identities | Gaps     | Strand     | Frame |
|---------------|--------|------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 16/17(94%) | 0/17(0%) | Plus/Minus |       |

## Features:

**137175 bp at 5' side: uncharacterized protein LOC107983958240367 bp at 3' side: peptidyl-prolyl cis-trans isomerase CYP95-like**

Query 6 AGTCCTTAATGGATCAG 22  
Sbjct 111773794 AGTCCTTCATGGATCAG 111773778

Range 29: 112404726 to 112404738

| Score         | Expect | Identities  | Gaps     | Strand     | Frame |
|---------------|--------|-------------|----------|------------|-------|
| 26.3 bits(13) | 332()  | 13/13(100%) | 0/13(0%) | Plus/Minus |       |

## Features:

**sperm acrosome-associated protein 7 isoform X1**sperm acrosome-associated protein 7 isoform X5

Query 1 AGCCAAGTCCTTA 13  
Sbjct 112404738 AGCCAAGTCCTTA 112404726

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