|  |
| --- |
| Group 1-3 |
| You have a GO annotation: GO:0007584; |
| What is the biological process this GO term is describing, and how many co-ocurring termns can be found. |
| Is Alpha-2-macroglobulin involved in this function? |
| What is the amino acid sequence of this protein (organism Rattus norvegicus) |
| Is this protein modified (post-translational modifications)? And if yes, how? |
| Which proteins are main interaction partners? |

|  |
| --- |
| Group 4-6 |
| You have a GO annotation: GO:0007584; |
| What is the biological process this GO term is describing, and how many co-ocurring termns can be found. |
| Is Alpha-2-macroglobulin involved in this function? |
| What is the amino acid sequence of this protein (organism Rattus norvegicus) |

|  |
| --- |
| Group 7-9 |
| You have the following protein sequence: MSALGAVIALLLWGQLFAVDSGNDVTDIADDGCPKPPEIAHGYVEHSVRYQCKNYYKLRTEGDGVYTLNDKKQWINKAVGDKLPECEADDGCPKPPEIAHGYVEHSVRYQCKNYYKLRTEGDGVYTLNNEKQWINKAVGDKLPECEAVCGKPKNPANPVQRILGGHLDAKGSFPWQAKMVSHHNLTTGATLINEQWLLTTAKNLFLNHSENATAKDIAPTLTLYVGKKQLVEIEKVVLHPNYSQVDIGLIKLKQKVSVNERVMPICLPSKDYAEVGRVGYVSGWGRNANFKFTDHLKYVMLPVADQDQCIRHYEGSTVPEKKTPKSPVGVQPILNEHTFCAGMSKYQEDTCYGDAGSAFAVHDLEEDTWYATGILSFDKSCAVAEYGVYVKVTSIQDWVQKTIAEN;  What is the translated nucleotide? |
| What is the biological function of this protein? |
| Highlight/name the subcellular location of this protein |
| Does the protein contain anibody binding sites? |

|  |
| --- |
| Group 10-12 |
| You have the following gene name: **SNCA**  What is the name of the protein? |
| What is the protein sequence? And show the structure of the protein |
| Name three interaction partners |
| Provide the protein sequence of the interaction partner forming aggregates with SNCA, i.e. being responsible for plaque formation in the brain. |
| Highlight the hydrophobic amino acids. |

|  |
| --- |
| Group 13-15 |
| Which protein is coded by the following gene, how many amino acids are encoded?  AAGCTTCGAGAGTATGAGGCGGCACTAAACTCTAAGGATGCGGCGCTGGCTACTGCCCTAGGGGACAAAAAGAGTTTAGAGGGAGACTTGGAGGATCTGAAAGATCAGATTGCCCAGCTAGAAGCATCCTTATCTGCCGCCAAAAAGCAGTTAGCAGATGAAACTTTACTTAAAGTGGATTTGGAGAATCGCTGTCAGAGCCTTACTGAGGACTTGGAGTTTCGTAAAAATATGTATGAAGAGGAGATCAATGAGACAAGGAGGAAGCATGAGACCCGCTTGGTGGAAGTGGACTCTGGGCGTCAGATTGAGTATGAGTACAAGCTGGCTCAAGCCCTGCATGAGATGCGGGAGCAGCACGACGCGCAGGTGAGGCTGTACAAGGAAGAGCTGGAGCAGACCTACCACGCCAAGCTTGAGAATGCCAGACTCTCCTCAGAGATGAACACTTCCACTGTCAACAGTGCCCGGGAAGAGCTGATGGAGAGCCGGATGAGGATCGAGAGCCTCTCCTCACAGCTCTCTAACCTGCAGAAAGAGGTAAGCAGCGTCTTCCTTTGAGCAGGACTGAGGTGTAGCTGGAAGGCTGGCCACCTGCGCCATCGCTGCCTCCCTGGTGCTACTTCTCTTTTGTCCCAGATGAGACATATTTTCTCCTG |
| From which species? |
| Name the top 10 candidates with at least 50% identy to this protein, provide the number of amino acids in the respective protein sequences |
| Is this protein involved in   * DNA recombination * Inflammatory response |
| Is n amino acid point mutation at position 90 of the protein sequence critical?  If yes, is another moint mutation also mentioned in the same context? |
| How similar ist this sequence to the following sequence of the following protein: database code: P21619 |