

Eastern Mediterranean University

Faculty of Arts and Sciences

Molecular Biology and Genetics

BIOL312 - Practical 5

1. Search for the `P06858`

- a. What are the GO molecular functions of this protein?
- b. How many publications are there related with P06858?
- c. What is (are) the domain name(s) and position(s) of this protein?
- d. Give information about the PTM and Processing of this protein.
- e. Which position has maximum amount of variations? Give details about the variations. (Eg: What kind of variation? Feature ID? Disease association? etc..)

2- In this question, you will work with three sequences: NP_203523.1, NP_071859.1 and NP_067080.1.

How many identical amino acids, conserved substitutions and semi-conserved substitutions are found among NP_203523.1, NP_071859.1 and NP_067080.1?

3- The odorant-binding protein (OBP) was described in rat and cow as a lipocalin that binds odorants selectively.

- a) Write down the accession number of the rat lipocalin 2 protein.
- b) What is the closest human homolog of rat lipocalin 2 protein? Explain the reason and give details about your answer.
- c) What is the specific name given to this type of homologous proteins?