

1.

MHHHHHHEENLYFQSSLAEIRTDNFNILYSMMKKHEEFWMLRLRIRRMADAWIQAIKSLAEKQN  
LEKRKRKKVVLVHLGLLTKESGFKIAETAFASSGGLGELVQWSDLITSLYLLGHDIRISASLAE  
LKEIMKKVGNRSGCPTVGDRIVELIYIDIVGLAQFKKTLGPSWVHYQCMLRVLDSFGTEPE  
FNHANYAQSKGHKTPWGKWNLNPPQFYTMFPHTPDNSFLGFVVEQHLNSSDIHHINEIKRQN  
QSLVYGKVDSEFWKNKKIYLDIIHTYMEVHATVYGSSTKNIPSYVKNHGILSGRDLQFLLRET  
KLFVGLGFPEYEGPAPLEAIANGCAFLNPKFNPPKSSKNTDFFIGKPTLRELT SQHPYAEVFI  
GRPHVWTVDLNNEEVEDAVKAILNQKIEPYMPYEFTCEGMLQRINAFIEKQDFCHGQVMWP  
PLSALQVKLAEPGQCKQVCQESQLICEPSFFQHLNKDKDMLKYKVTCSSELAKDILVPSF  
DPKNKHCVFQGDLLLFSCAGAHPRHQRVCPDRDFIKGQVALCKDCLMKIEEGKLVIIWINGDK  
GYNGLAEVGKKFEKDTGIKVTVEHPDKLEEKFPQVAATGDGPDIIFWAHDRFGGYAQSGLLA  
EITPAAAFQDKLYPFTWDVRYNGKLIAYPIAVEALSIIYNKDLLPNPPKTWEEIPALDKEL  
KAKGKSALMFNLQEPYFTWPLIAADGGYAFKYAAGKYDIKDVGVNDNAGAKAGLTFVLDLIKN  
KHMNADTDYSIAEAAFNKGETAMTINGPWAWSNIDTSAVNYGVTVLPTFKGQPSKPFVGVLS  
AGINAASPNKELAKEFLENYLLTDEGLEAVNKDKPLGAVALKSYEEELAKDPRIAATMENAQ  
KGEIMPNIPOMSAFWYAVRTAVINAASGRQTVDAALAAQTNAAAGGSDVDIEAGQTLVQV  
VNISNGETWVAIQLPAQYRSFDLVFENVSPSTSGSVLVAQMAPQSGGVYGSNYSGSGWGNL  
GGGGFYGYSEAKWMCLWPANRSGPNSKTGIYGTCKLMNLNQSNAVPSVTSNLFAPTAYKNEP  
GYANVGGCCQKIRGLASSIQFAFALHGGNVPQNTDTFSGGTIKVYGWNHHHHHHHH

Predikujte strukturu proteinu (Phyre, SwissProt, PSI Pred), zkuste jeho co nejlepsi charakterizaci - jake budou vlastnosti proteinu, lze vysledovat konzervovane aminokyseliny. Je na tomto proteinu neco zvlastniho?

2. s prilozenym pdb provedte strukturni superpozici za vyuziti programu DALI a FATCAT. Popiste a charakterizujte vysledek