Abstract:

Blood fluke *Schistosoma mansoni* is one of the most important human parasites. Proteolytic system of schistosoma is crucial for parasite – host interactions. Therefore some of the proteases became potential therapeutic targets. This work is focused on not yet characterized serine protease SmSP2. SmSP2 is newly discovered protease of *S. mansoni*, whose biological role is unknown. This protease is highly expressed in developmental stages parasitizing humans. SmSP2 was recombinantly expressed in prokaryotic and eukaryotic expression system (*E. coli* a *P. pastoris*) and purified using chromatographic methods. Recombinant SmSP2 was used for polyclonal antibody production. Conditions for refolding were optimized. Basic biochemical properties of the protease were detected and substrate amino acid preferences for P1 – P4 sites for single aminoacids were identified using synthetic fluorogenic peptides for positional scanning substrate combinatorial library (PS-SCL). (In Czech)