ABSTRACT

The present application discloses a secretory protein, including polypeptide sequence, nucleic acid sequence, operating principle and application area of sDSS1 protein. The sDSS1 protein is a secretory protein of higher primate, and can be detected in human serum and CSF. The sDSS1 protein can be combined with oxidation protein under nonenzymatic condition to form polymer or with Aβ polypeptide to reduce formation of Aβ oligomer. The addition of sDSS1 protein to culture medium can shield the cytotoxicity induced by oxidation protein, Aβ oligomer, amylin oligomer and glycosylated protein, so as to protect the cells against these toxoproteins. The sDSS1 protein can prolong survival time of senescence-accelerated mice significantly. The protein can be used to prevent and treat the diseases induced by oxidation protein, glycated protein, Aβ protein accumulation, amylin protein accumulation or excessive formation or accumulation of other pathogenic proteins with similar features, and has important potential in biological medicine.

<Figure 3a>