treating the diseases induced by oxidation protein, glycosylated protein, Aβ, amylin and other pathogenic proteins with similar features.

In one aspect, provided herein is a secretory deleted split hand/split foot 1 (sDSS1) protein for use in therapy.

In another aspect, provided herein is a use of a secretory deleted split hand/split foot 1 (sDSS1) protein in the manufacture of a medicament for reducing apoptosis or promoting cell survival of a live cell that is exposed to a pathogenic polypeptide.

The specific technical solution is described below:

A novel sDSS1 protein is provided, which includes the natural protein sDSS1 present in Anthropoidea animals including humans, wherein a human sDSS1 protein has an amino acid as set forth in SEQ ID NO: 1.

Preferably, the Anthropoidea animals may further be chimpanzee, bonobo, gorilla, orangutan, white-cheeked gibbon, golden snub-nosed monkey, rhesus macaque, olive baboon, Angola colobus, sooty mangabey, drill and northern pigtail macaque; wherein a chimpanzee sDSS1 protein has an amino acid as set forth in SEQ ID NO: 5, a bonobo sDSS1 protein has an amino acid as set forth in SEQ ID NO: 6, a gorilla sDSS1 protein has an amino acid as set forth in SEQ ID NO: 7, an orangutan sDSS1 protein has an amino acid as set forth in SEQ ID NO: 8, a white-cheeked gibbon sDSS1 protein has an amino acid as set forth in SEQ ID NO: 9, a golden snub-nosed monkey sDSS1 protein has an amino acid as set forth in SEQ ID NO: 10, a rhesus macaque sDSS1 protein has an amino acid as set forth in SEQ ID NO: 11, an olive baboon sDSS1 protein has an amino acid as set forth in SEQ ID NO: 12, a Angola colobus sDSS1 protein has an amino acid as set forth in SEQ ID NO: 13, a sooty mangabey sDSS1 protein has an amino acid as set forth in SEQ ID NO: 14, a drill sDSS1 protein has an amino acid as set forth in SEQ ID NO: 15, a northern pigtail macaque sDSS1 protein has an amino acid as set forth in SEQ ID NO: 16.

Preferably, the sDSS1 protein includes a N-terminal amino acid sequence of 58 amino acids and a C-terminal amino acid sequence of 31 amino acids, wherein the human sDSS1 protein has a N-terminal amino acid sequence of 58 amino acids as set forth in SEQ ID NO: 3, the human sDSS1 protein has a C-terminal amino acid sequence of 31 amino acids as set forth in SEQ ID NO: 2; wherein the N-terminal amino acid sequence of the 58 amino acids includes 3 or more amino

CLAIMS

What is claimed is:

1. A secretory deleted split hand/split foot 1 (sDSS1) protein for use in therapy.

2. The sDSS1 protein of claim 1, wherein said sDSS1 protein comprises an amino acid sequence set forth in SEQ ID NO: 1, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, or 16.

3. Use of a secretory deleted split hand/split foot 1 (sDSS1) protein in the manufacture of a medicament for reducing apoptosis or promoting cell survival of a live cell that is exposed to a pathogenic polypeptide.

4. The use of claim 3, wherein said sDSS1 protein comprises an amino acid sequence set forth in SEQ ID NO: 1, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, or 16.

5. The use of claim 3 or 4, wherein said pathogenic polypeptide is selected from advanced oxidation protein products (AOPP), amyloid-β, amylin, and glycosylated protein.

6. The use of any one of claims 3-5, wherein said pathogenic polypeptide is advanced oxidation protein products (AOPP).

7. The use of any one of claims 3-5, wherein said pathogenic polypeptide is amyloid-β.

8. The use of any one of claims 3-5, wherein said pathogenic polypeptide is amylin.

9. The use of any one of claims 3-5, wherein said pathogenic polypeptide is glycosylated protein.

10. The use of any one of claims 3-5, wherein said pathogenic polypeptide is glycated protein.

11. The sDSS1 protein according to claims 1 or 2 or the use of any one of claims 3 to 10, wherein said sDSS1 protein comprises an amino acid sequence set forth in SEQ ID NO: 1.

12. The sDSS1 protein or the use according to claim 11, wherein the sDSS1 protein is encoded by a nucleotide.

13. The sDSS1 protein or the use according to claim 12, wherein the nucleotide comprises DNA or RNA.