

ABSTRACT

DETECTION OF MISFOLDED PROTEINS

Methods and kits are provided for amplifying and detecting misfolded proteins from samples, for example, from patients having Alzheimer's Disease, Parkinson's Disease, and the like. For example, a method for determining a presence of soluble, misfolded protein in a sample may include contacting the sample with a monomeric, folded protein to form an incubation mixture; conducting an incubation cycle two or more times effective to form an amplified portion of misfolded protein; incubating the incubation mixture effective to cause misfolding and/or aggregation of at least a portion of the monomeric, folded protein; physically disrupting the incubation mixture effective to break up at least a portion of any protein aggregate present; and determining the presence of the soluble, misfolded protein in the sample by detecting at least a portion of the soluble, misfolded protein. The monomeric, folded protein and the soluble, misfolded protein may exclude prion protein (PrP) and isoforms thereof.

[No suitable figure]