

Multimerization phenomenon of 30Kc19 protein in the presence of SDS would be useful for finding PTD domains

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Recently, emphasis on the treatment of neurodegenerative diseases, such as Alzheimer's disease have been the primary concern for the past decades. 30K protein, isolated and purified from silkworm hemolymph, was found to have interesting and astonishing effects; anti-apoptosis, promotion of mammalian cell growth, anti-oxidizing effects and also its ability to penetrate through the cell membrane. Understanding the phenomenon on the internalization of 30Kc19 protein through the cell membrane, in spite of its large molecular weight (30kDa) has been the fundamental subject in our research laboratory.

In recent study, we have observed and discovered that multimerization phenomenon is noticed for 30Kc19 protein when the SDS is present. References from other published papers commented that this phenomenon is common for proteins with PTD (protein transduction domain).

This has led us to the assumption that the PTD fragment of 30Kc19, when trypsinized, shows multimerization phenomenon on the SDS-PAGE. This method would be useful for finding PTD domains in various other proteins.