SR-CD Investigation of Recombinant Mouse Prion Proteins

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Synchrotron radiation circular dichroism (SR-CD) was used to determine the secondary structure of full length recombinant mouse prion protein (*mo*PrP$^{(23\text{-}231)}$). This is ours second time from the first trial, we change a buffer system from the last time. Main experiment is the effect of variant pH due to the secondary structure of *mo*PrP$^{(23\text{-}231)}$. Also from the first trail, we found that have to use a 50μm spacer during measure, because the CD signals are too low without the spacer.

As we will see the Fig. 1, we ware lose the far-UV signals by using spacer, because was interfered by liquid solution. From the near-UV signals, the secondary structure of *mo*PrP$^{(23\text{-}231)}$ had distinctively different.

Next time, we will try to measure the secondary structure of matured fibril in various pH.

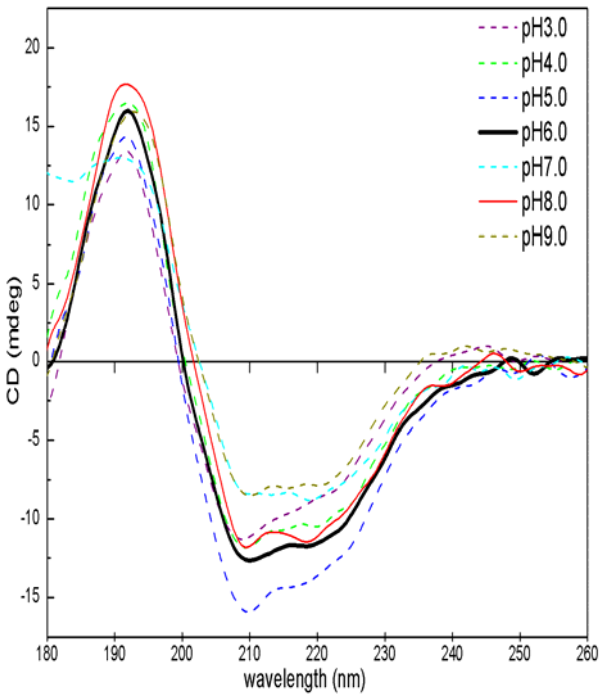

Fig. 1: The spectra of *mo*PrP$^{(23\text{-}231)}$ collected with CaF_2 windows at various pH. Protein concentration is 2mg/ml, using a 50μm spacer.