

### Separation Characteristics of IgY (Immunoglobulin Yolk) in Various HPLC Columns

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IgY (Immunoglobulin Yolk) in egg yolk corresponds to IgG in animal serum and plays an important role as immunological proteins in intestines. Carragenan and arabic gum were used as pretreatment agents to purify IgY from fresh egg yolk. DEAE sepharose column in FPLC (Fast Protein Liquid chromatography) was an ion exchange tool to remove contaminants as well as to elute IgY from the column. GF HPLC (Gel Filtraion High Performance Liquid Chromatograpgy) enables to measure the molecular weights of IgY and to identify the purified IgY by comparing the molecular weight of standard IgY with the purified one. IgY is a heterogeneous group of different molecular weight and ionic properties, which was investigated with various IE HPLC (Ion Exchange High Performance Liquid Chromatograpgy) columns such as AX, CX and SCX. Three peaks of IgY were separated in the AX column under the conditions of 0.5 M NaCl and pH=8. The SCX column also gave the three peaks of IgY at pH=5 and NaCl=0.5 M.