

FcRN is a protein that binds IGg antibodies

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A neonatal Fc receptor protein, FcRn, is responsible for transportation of IgG antibodies from the mother to the fetus. The crystalline structure of FcRn was determined to be similar to MHC class 1 molecules which show the interaction between IgG and FcRn is pH dependent. Additionally, studies with mice proved that FcRn transports IgG from the mother to the fetus, and also extends the half-life of IgG inside the body. Since FcRn is involved in prolonging the half-life of IgG, drugs that modulate that interaction could help reduce the concentration, and therefore, the damage caused by autoantibodies in autoimmune diseases.