ABSTRACT

Described herein are variant Fc-fragments that contain an insertion within or adjacent to a loop that bind to the neonatal Fc receptor (FcRn) with higher affinity and/or higher binding activity at pH 5-6 and approximately the same or lower affinity at a physiologic pH as compared to a control Fc-fragment, that is, little or no binding activity at a physiologic pH. Also described are variant Fc-polypeptides that comprise these variant Fc-fragments. Further described are methods of making and identifying such Fc-fragments and methods for making and using such Fc-polypeptides.