

Abstract

The mean PNK activity in red blood cells from black subjects was only about 40% of that in whites. Among 51 whites examined, one was found to have enzyme deficiency. The estimated gene frequencies for PNKH (the common allele in whites which codes for higher enzyme activity) and PNKL (the common allele in blacks which codes for lower enzyme activity) were .35 and .65, respectively, for black donors, and .81 and .19, respectively, for white donors. The variant enzyme in persons with enzyme deficiency was associated with an increased rate of degradation in red cells during aging. No other biochemical or electrophoretic differences were detected.