NUP188 encodes a nuclear pore protein. Transport of macromolecules between the nucleus and the cytoplasm of eukaryotic cells occurs through the nuclear pore complex, a large macromolecular complex that spans the nuclear envelope. The structure of the vertebrate NPC has been studied extensively; recent reviews include 12, 13, 14, and 15. The yeast NPC shares several features with the vertebrate NPC, despite being smaller and less elaborate. Many yeast nuclear pore proteins, or nucleoporins, have been identified by a variety of genetic approaches. Nup188p is one of the most abundant yeast nucleoporins. Nup188p interacts physically with other abundant yeast nucleoporins, Nic96p, Pom152p, Nup157p, and Nup170p. These abundant nucleoporins may form the structural core of the NPC. NUP188 is not essential, but both null and dominant alleles cause temperature sensitivity and defects in nuclear envelope morphology. The nup188 null also causes a defect in protein import into the nucleus, which can be suppressed by overexpressing cytosolic HSP70-related chaperones. nup188 mutations are also synthetically lethal with mutations in several other nucleoporin genes.