AAR2 encodes a protein that is found as part of the U5 snRNP, either as part of a free U5 snRNP complex or as part of a U1/U5 snRNP complex. However, Aar2p is not found in other higher order complexes involving U5, either in the U4/U6.U5 tri-snRNPor in the catalytically active spliceosome. When U5 associates with the U4/U6 complex to form the U4/U6.U5 tri-snRNP complex, Aar2p is released from the U5 snRNP. The role of Aar2p in mRNA splicing appears to be that of a recycling factor required to regenerate the form of the U5 snRNP that can associate with the U4/U6 snRNP complex to regenerate the U4/U6.U5 tri-snRNP . This tri-snRNP is recruited to the pre-mRNA by the U1 and U2 snRNPs to form the spliceosome. Aar2p was originally characterized as a factor specifically required for the splicing of MATa1 pre-mRNA, but not for splicing of ACT1 pre-mRNA . The apparent specificity of the aar2 mutant defect in MATa1 pre-mRNA splicing seems to be due to a recycling defect exacerbated by the presence of two introns within the same gene, a rare occurrance in S. cerevisiae. The free U5 snRNP complex is composed of Aar2p, Prp8p, Snu114p, and the seven Sm proteins that are common to the snRNPs for the U1, U2, U4, and U5 snRNAs . These Sm proteins and the genes encoding them are: SmB, SmD1, SmD2, SmD3, SmE, SmF, SmG.