ARF3 encodes one of three ADP ribosylation factorsidentified in S. cerevisiae. ARFs are GTPases of the Ras superfamily that regulate the formation of coated vesicles in intracellular trafficking. The process of vesicle formation in the exocytic and endocytic pathways has been recently reviewed, as has the role of ARF. Yeast ARF activity is regulated by the guanine nucleotide exchange factors Sec7p, Gea1p, and Gea2pand by the GTPase activating proteins Gcs1pand Glo3p. Arf3p is not essential for viability or for ER to Golgi transport, and cannot substitute for Arf1p and Arf2p.