SLM1 and its homolog SLM2 encode phosphatidylinositol-4,5-bisphosphatebinding proteins that are downstream effectors of the TOR complex 2TORC2 is involved in regulating actin cytoskeleton polarization during cell cycle progression, cell wall integrity, and nutrient receptor endocytosis. In addition to Avo2p, TORC2 contains Avo1p, Tsc11p, Lst8p, Bit61p, and Tor2p. Slm1p and Slm2p associate with TORC2 through direct physical interaction with Avo2p and Bit61p; this interaction also serves to stabilize localization of Slm1p and Slm2p at the plasma membrane. This localization is also dependent on the C-terminal pleckstrin homology domain found in Slm1p and Slm2p, phosphorylation of each protein by Tor2p, and the presence of PI4,5P2. SLM1 and SLM2 are essential for growth, and cells containing a slm1slm2 double mutation exhibit depolarization of the actin cytoskeleton and undergo eventual cell lysis. Overexpression of Slm1p or Slm2p is able to rescue loss of Tsc11p function.