Yeast TOR complex 2 (TORC2) is required for ceramide synthesis by activating Ypk-kinases. However, nothing is known yet about the upstream regulation of TORC2. We recently discovered that TORC2 localization to the plasma membrane domain MCT is essential for yeast viability. To elucidate possible regulation of TORC2 by lipids, we analyzed the localization of TORC2 and its known targets. The TORC2 target Slm1 dynamically localizes in two exclusive plasma membrane domains, in the MCT and predominantly in the MCC. Block of sphingolipid synthesis shifts most Slm1 to the MCT. Relocalization of Slm1 to the MCT is essential for yeast cell growth when sphingolipid metabolism is partially inhibited and leads to increased interaction with TORC2. Importantly, the level of Ypk1 phosphorylation on Thr662 by TORC2 correlates with Slm1’s relocalization and was strongly impaired when Slm1’s relocalization to the MCT was inhibited. Moreover, constitutively active ypk2 rescues the growth of slm<sup>ts</sup> or relocalization-deficient cells. Together, our data suggest that Slm1/2 proteins are upstream regulators of TORC2 and promote Ypk1 activation and ceramide synthesis under low sphingolipid levels.