ERG25 encodes C-4 methyl sterol oxidase, which catalyzes the first of three steps required to remove two C-4 methyl groups from an intermediate in ergosterol biosynthesis. Cells lacking ERG25 are auxotrophic for ergosterol, and accumulate a methylated sterol interm ediate, 4,4-dimethylzymosterol. A combination of mutations in ERG11, which encodes lanosterol 14-alpha-demethylase, and mutations that reduce cellular heme levelscan suppress the erg25 null sterol auxotrophy. The hem2 and hem4 mutations also suppress the erg25 phenotype in the presence of an azole antifungal drug. Expression of the Candida albicans ERG25 homolog complements the S. cerevisiae erg25 null phenotype; a human homolog has also been cloned.