Abstract

The present invention relates to a polypeptide having an activity to asymmetrically reduce (3S)-1-chloro-3-tert-butoxycarbonylamino-4-phenyl-2-butanone to produce (2R,3S)-1-chloro-3-tert-butoxycarbonylamino-4-phenyl-2-butanol isolated from a microorganism belonging to the genus *Ogataea*, a DNA encoding the polypeptide and a transformant that produces the polypeptide. The present invention moreover relates to a method of producing (2R,3S)-1-chloro-3-tert-butoxycarbonylamino-4-phenyl-2-butanol utilizing the polypeptide or the transformant.

Using the polypeptide or transformant of the present invention, optically active alcohols such as (2R,3S)-1-chloro-3-tert-butoxycarbonylamino-4-phenyl-2-butanol and the like can be produced efficiently.