

***SINGLE FLOWER* interacts with *TCP15* to regulate the branch of the inflorescence in tomato**

Dan Liu¹ & Han Xiao^{1*}

¹ National Key Laboratory of Plant Molecular Genetics, CAS Centre for Excellence in Molecular Plant Sciences, Institute of Plant Physiology and Ecology, Chinese Academy of Sciences, 300 Fenglin Rd, 200032 Shanghai, China.

*Corresponding author. Email: hanxiao@cemps.ac.cn

Abstract

A MYB transcription factor *SF* that affects the number of tomato flowers was identified by forward genetic method, and the interacting protein TCP15 of SF was screened by yeast double miscellany library. This study aims to elucidate the molecular mechanism of SF regulating tomato inflorescence development, so as to provide a theoretical basis for the directional design of tomato inflorescence number to improve yield and quality traits.

Funding

The work was supported by grants from Ministry of Science and Technology of the People's Republic of China (2018YFD1000800), National Natural Science Foundation of China (31672164, 32072577), and by Strategic Priority Research Program from the Chinese Academy of Sciences (XDA24030404).