

Fig. S1 Mass spectrum of the TMS-derived acidic metabolite produced from diphenylmethane by cells of strain B356 growing on diphenylmethane. Based on spectral features, the metabolite was identified as 2-hydroxy-6-oxo-7-phenylhepta-2,4-dienoic acid.

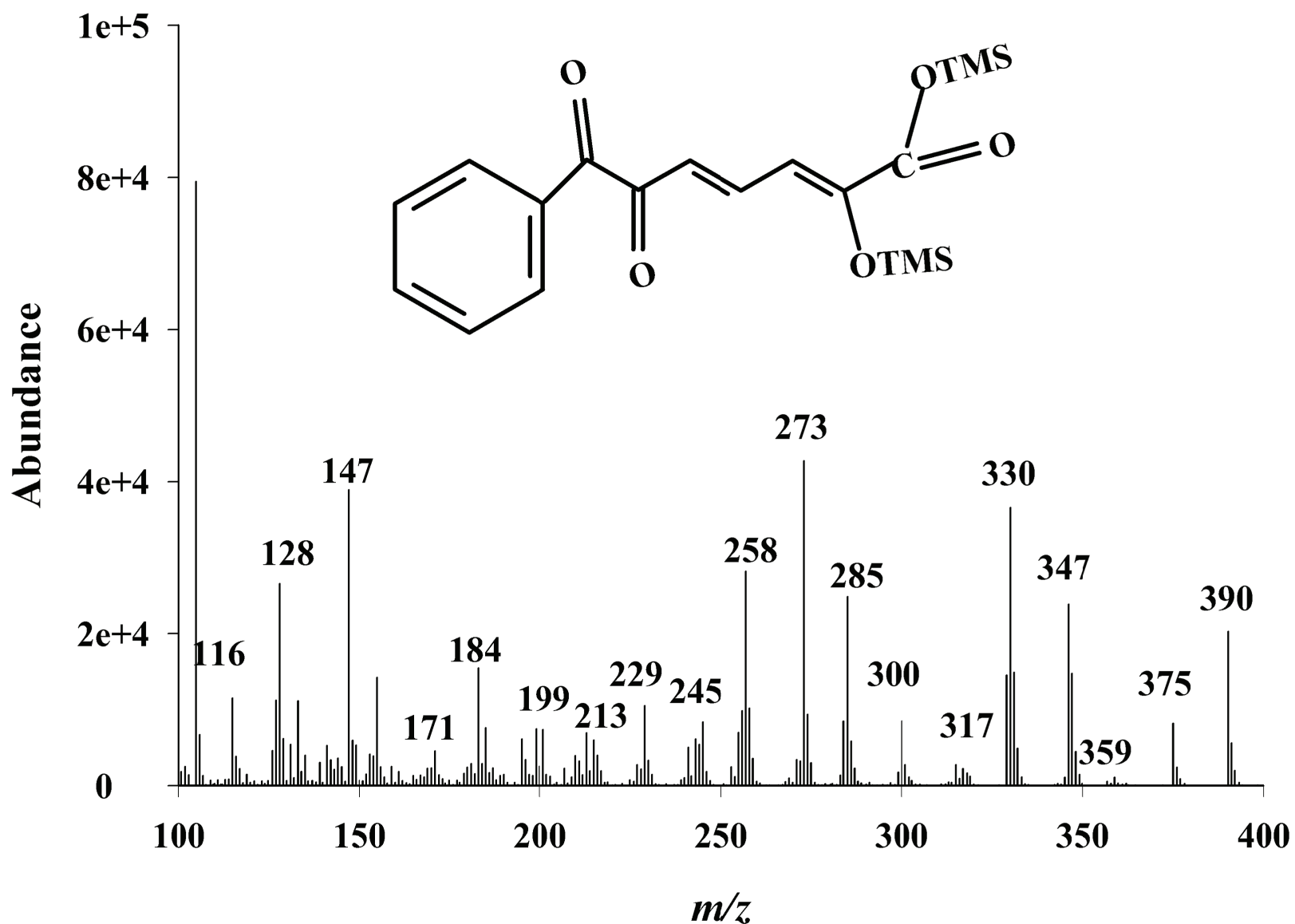


Fig. S2 Mass spectrum of a TMS-derived acidic metabolite produced from benzophenone by biphenyl-induced cells of strain B356. Based on spectral features, the metabolite was identified as 2-hydroxy-6,7-dioxo-7-phenylheptanoic acid.

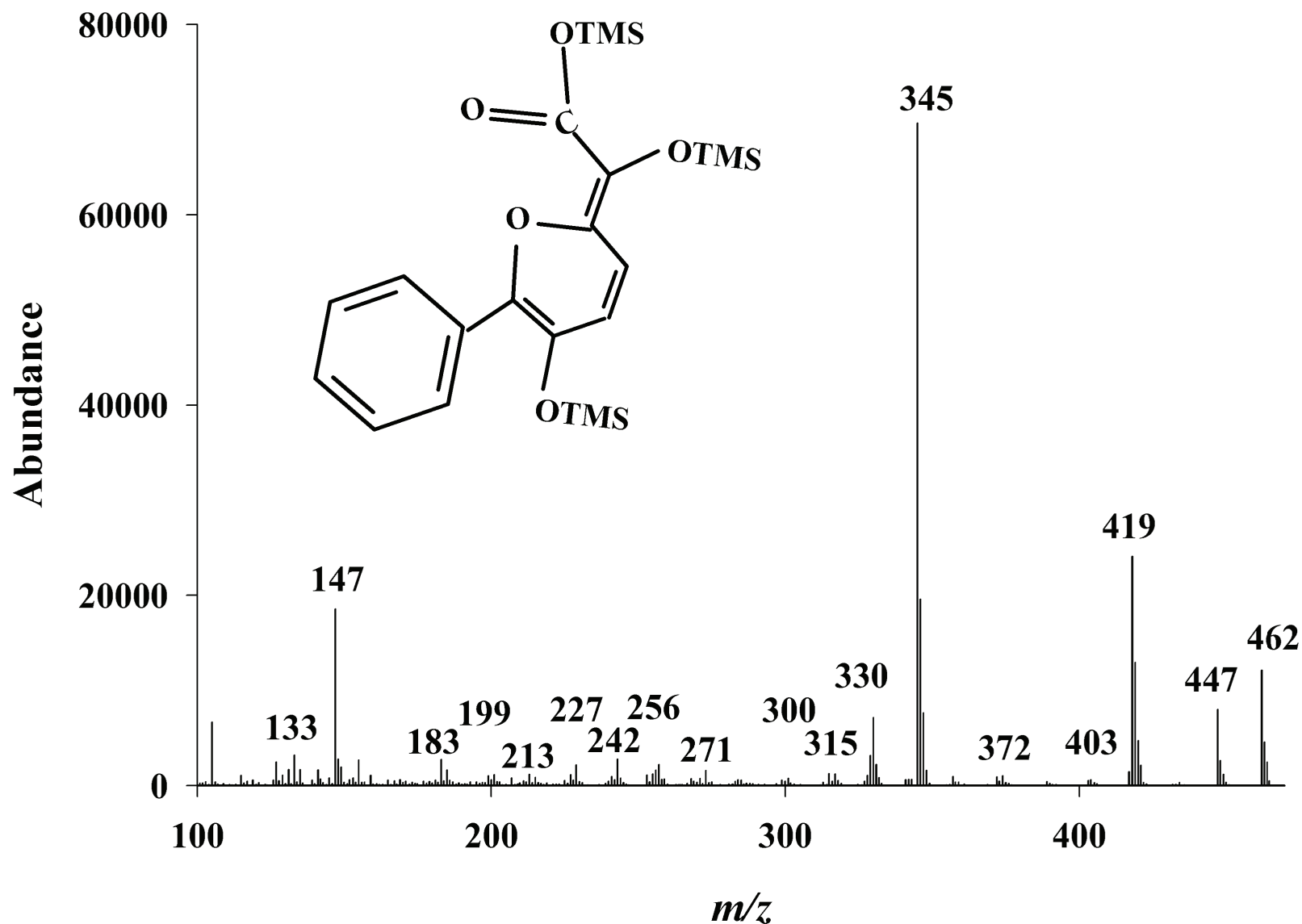


Fig. S3 Mass spectrum of a TMS-derived acidic metabolite produced from benzophenone by biphenyl-induced cells of strain B356. Based on spectral features, the metabolite was identified as a pyranol presumably generated from a cyclization reaction of 6,7-dioxo-7-phenylheptanoic acid.

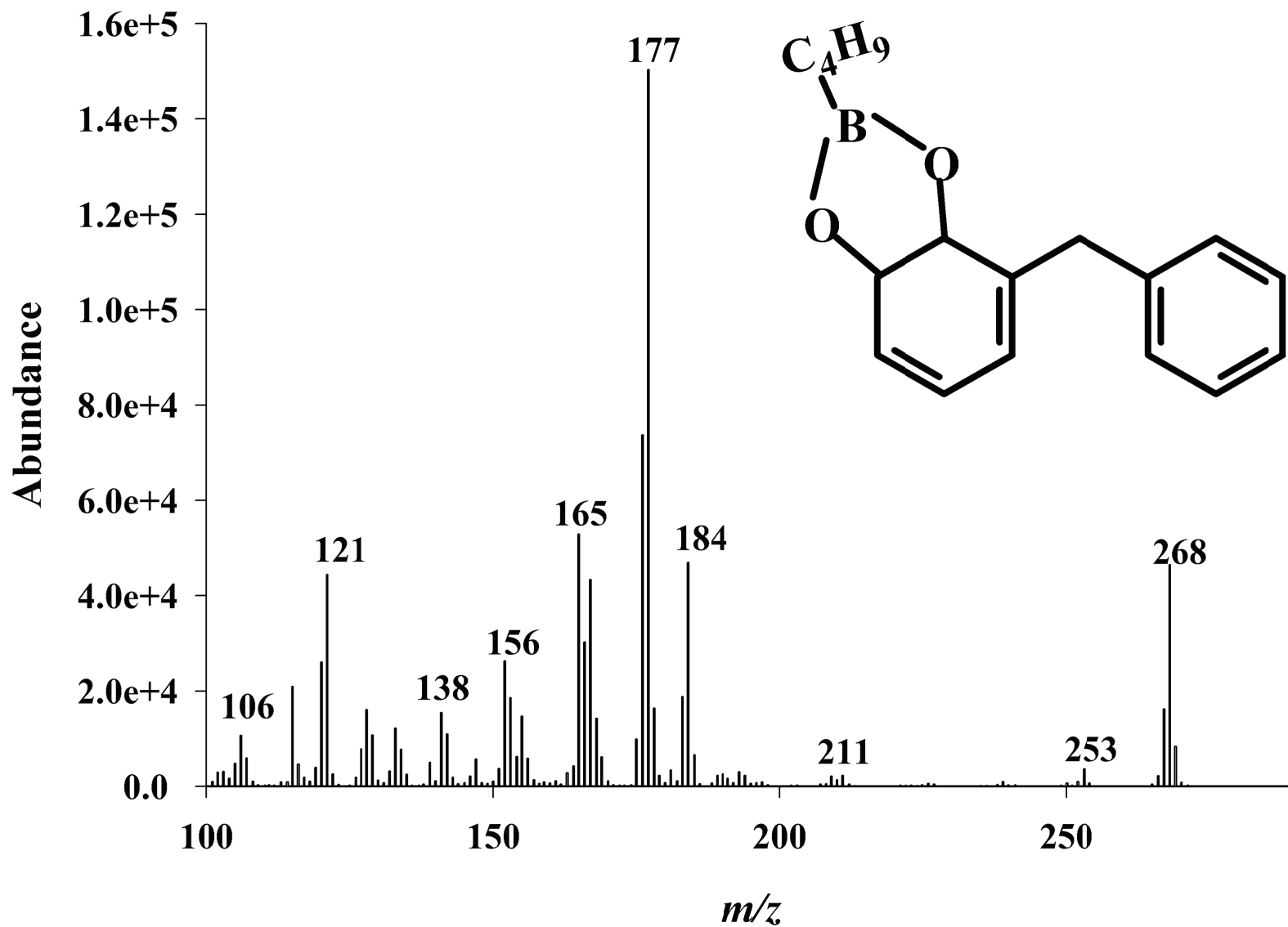


Fig. S4 Mass spectrum of a nBuB-derived metabolite produced from diphenylmethane by BphAE_{B356}. Based on spectral features, the metabolite was identified as 3-benzylcyclohexa-3,5-diene-1,2-diol.

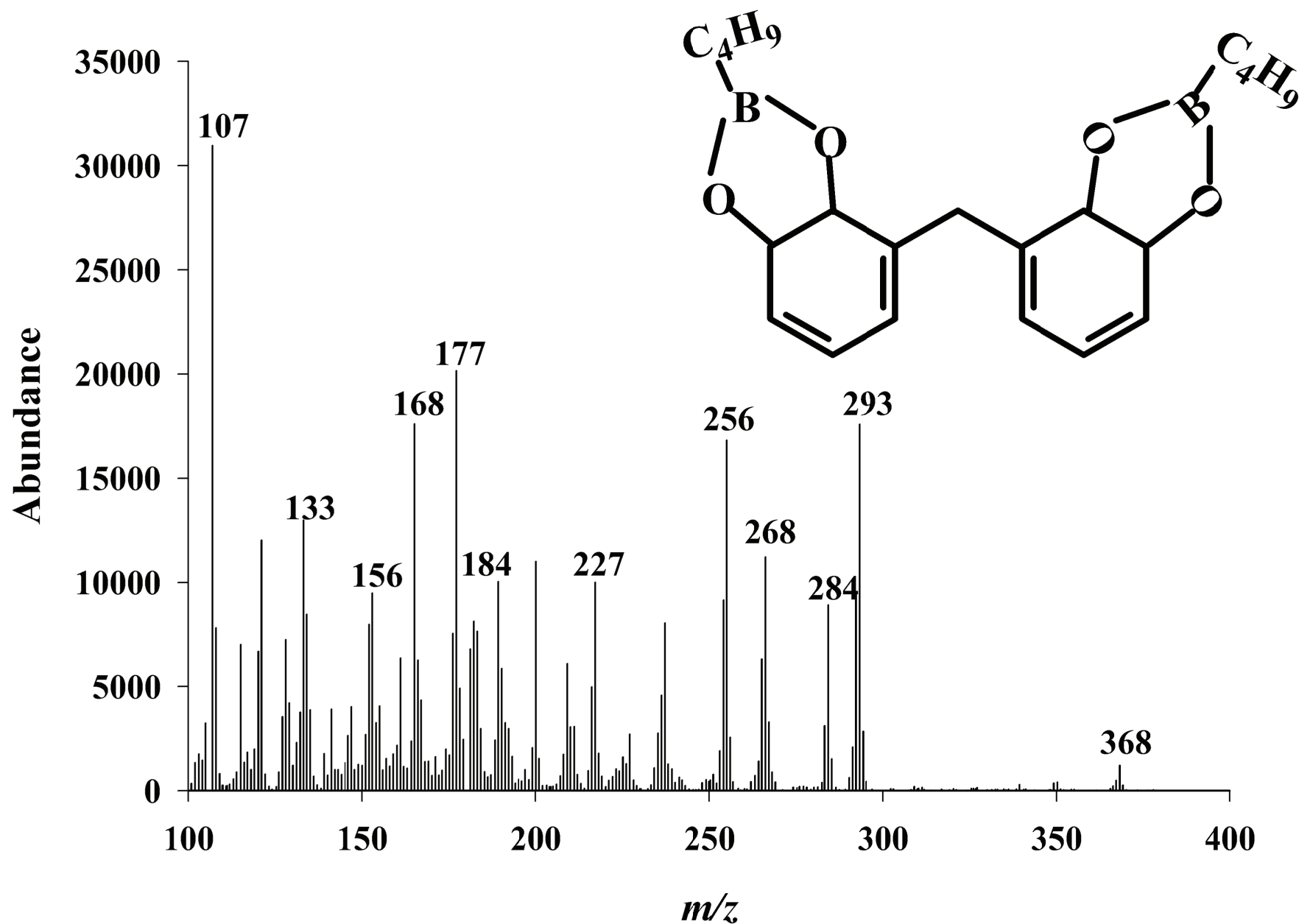


Fig. S5 Mass spectrum of a nBuB-derived metabolite produced from diphenylmethane by BphA_{E_{B356}}. Based on spectral features, the metabolite was identified as 3-[(5,6-dihydroxycyclohexa-1,3-dien-1-yl)methyl]cyclohexa-3,5-diene-1,2-diol.

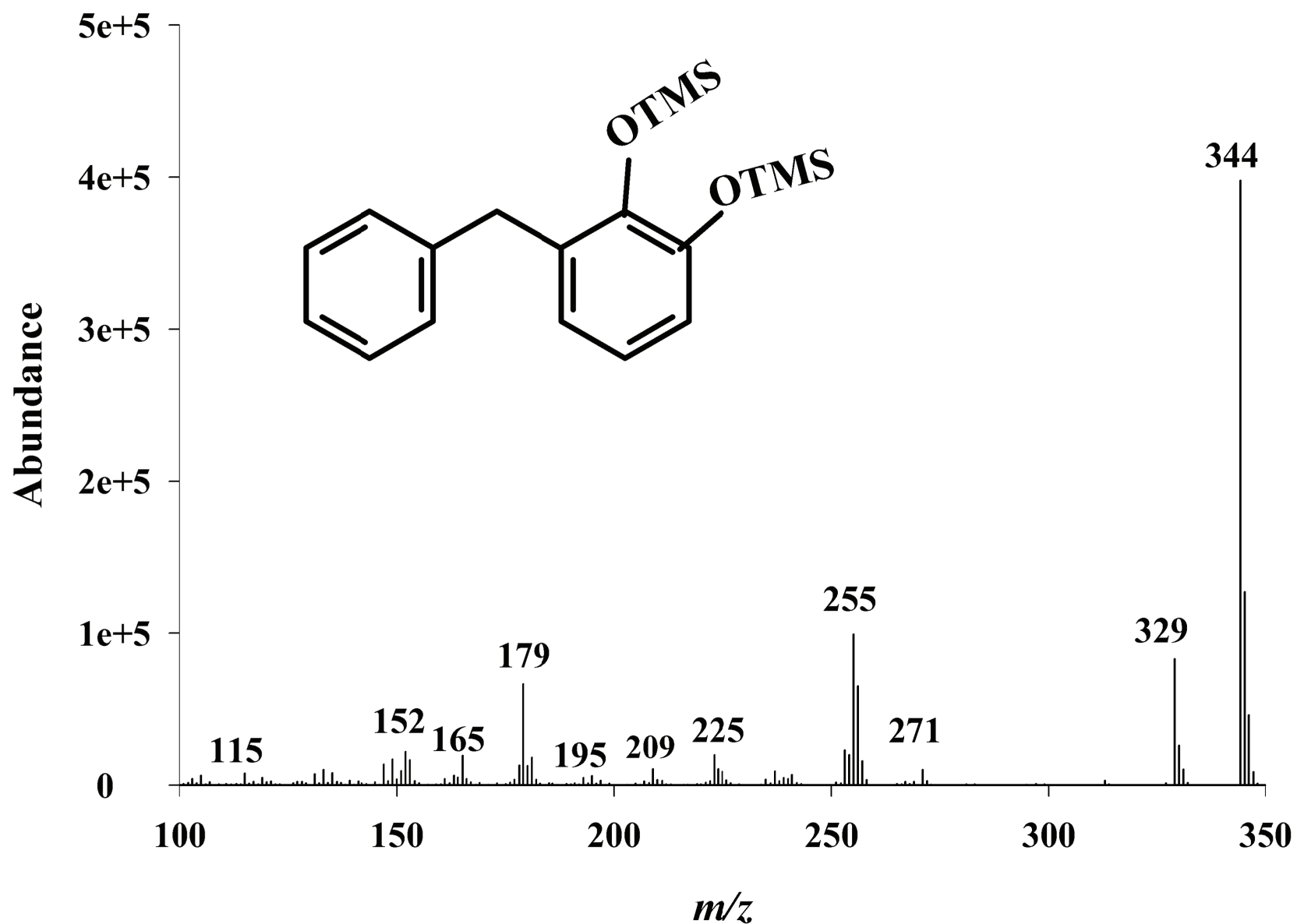


Fig. S6 Mass spectrum of the TMS-derived major metabolite produced from diphenylmethane by a coupled reaction composed of purified preparations of BphA_{E_{B356}} plus BphB_{B356}. Based on spectral features, the metabolite was identified 2,3-dihydroxydiphenylmethane.

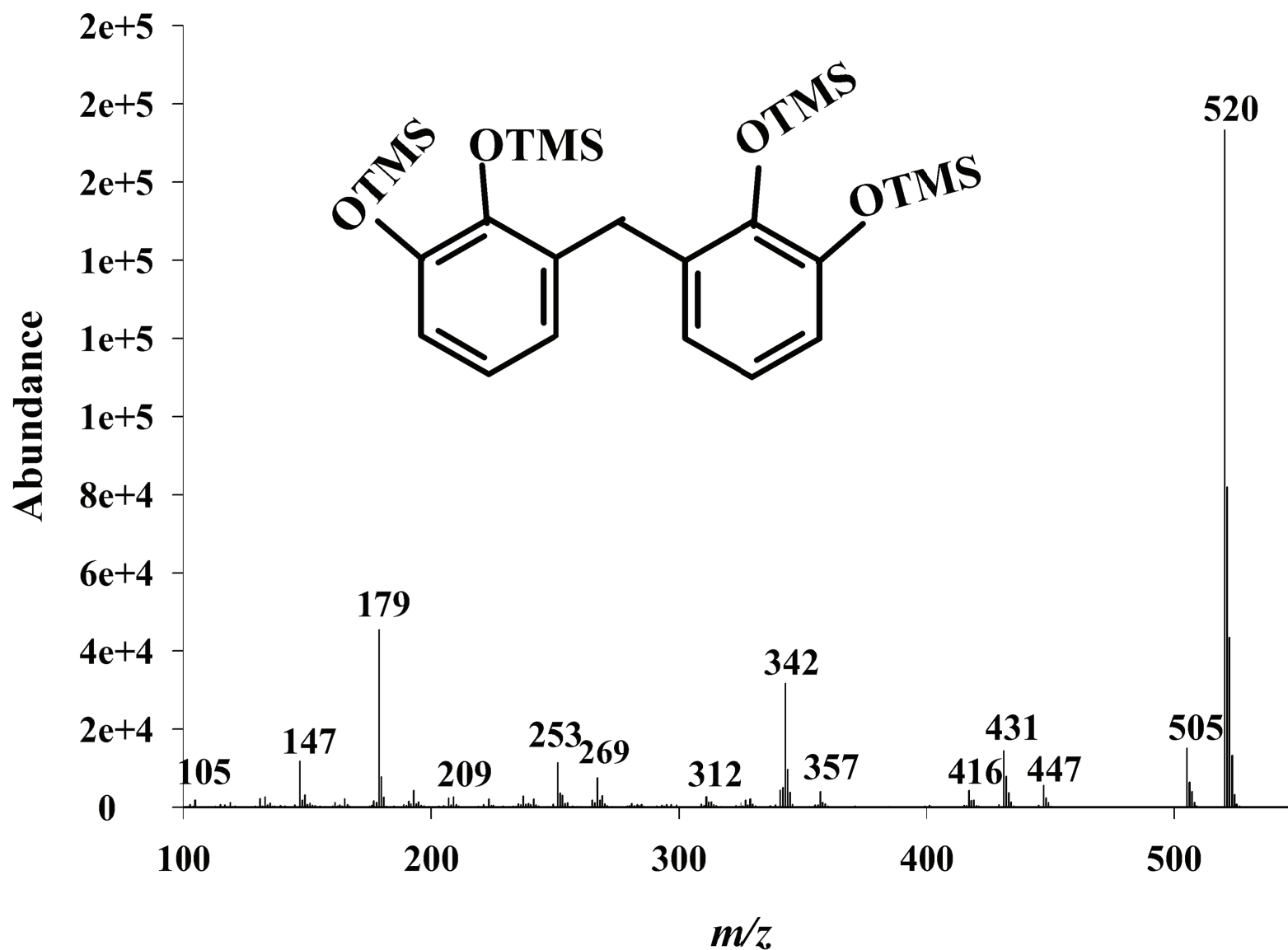


Fig. S7 Mass spectrum of the TMS-derived minor metabolite produced from diphenylmethane by a coupled reaction composed of purified preparations of BphA_EB₃₅₆ plus BphB_B356. Based on spectral features, the metabolite was identified 2,2',3,3'-tetrahydroxydiphenylmethane.

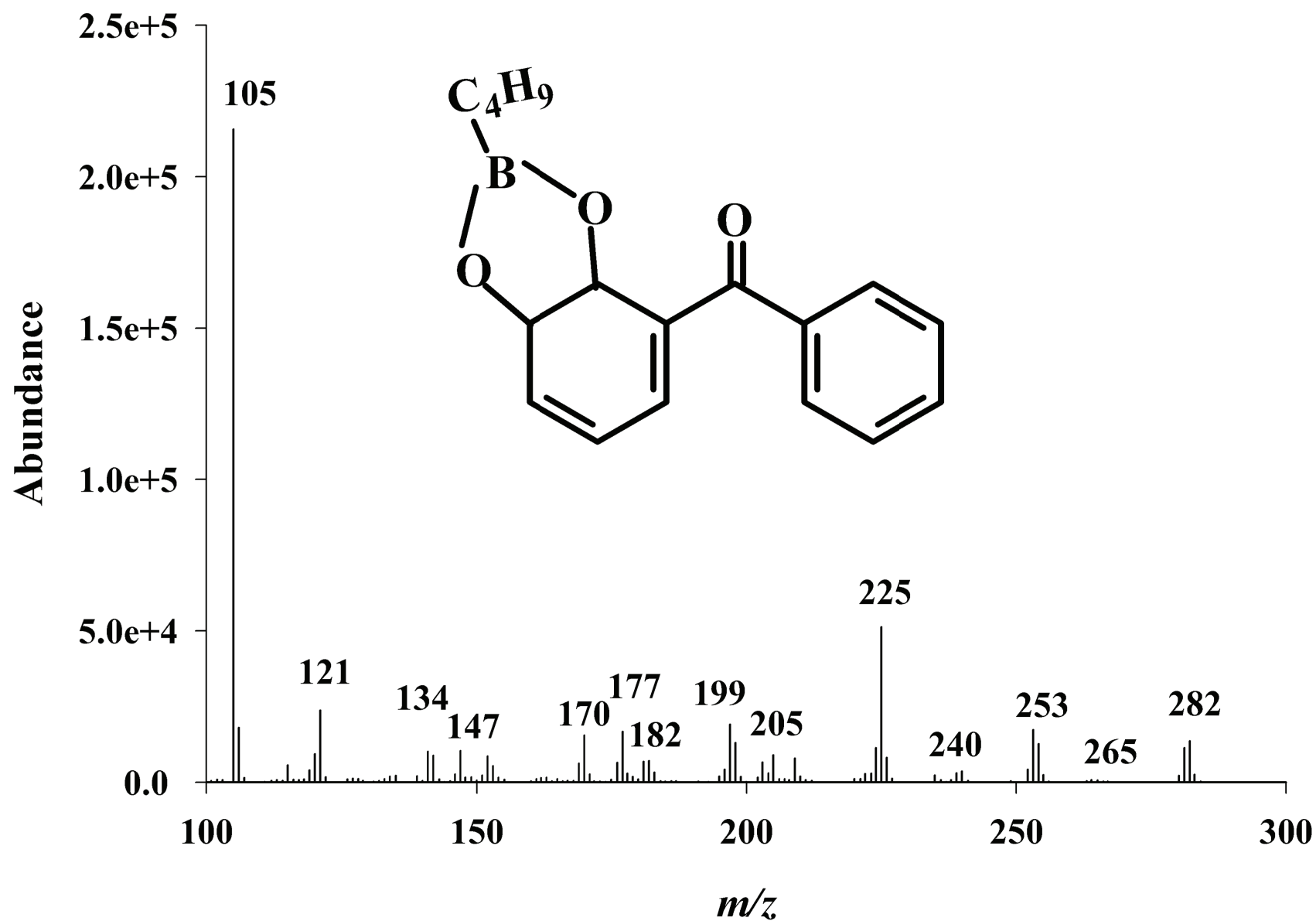


Fig. S8 Mass spectrum of the nBuB-derived metabolite produced from benzophenone by a BphA_{EB356}. Based on spectral features, the metabolite was identified 3-benzoylcyclohexa-3,5-diene-1,2-diol

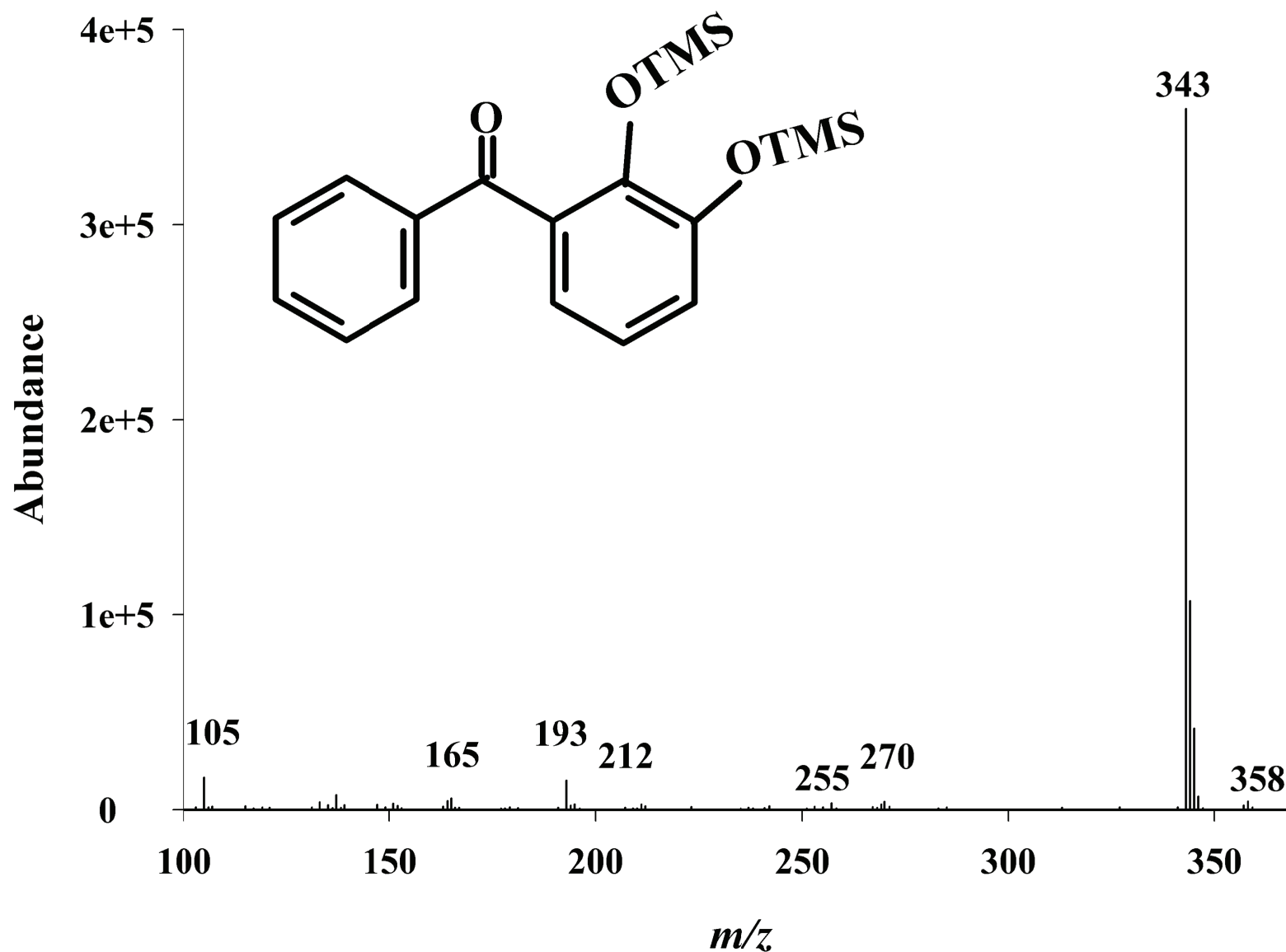


Fig. S9 Mass spectrum of the TMS-derived metabolite produced from 3-benzoylcyclohexa-3,5-diene-1,2-diol by BphB_{B356}. Based on spectral features, the metabolite was identified 2,3-dihydroxybenzophenone.

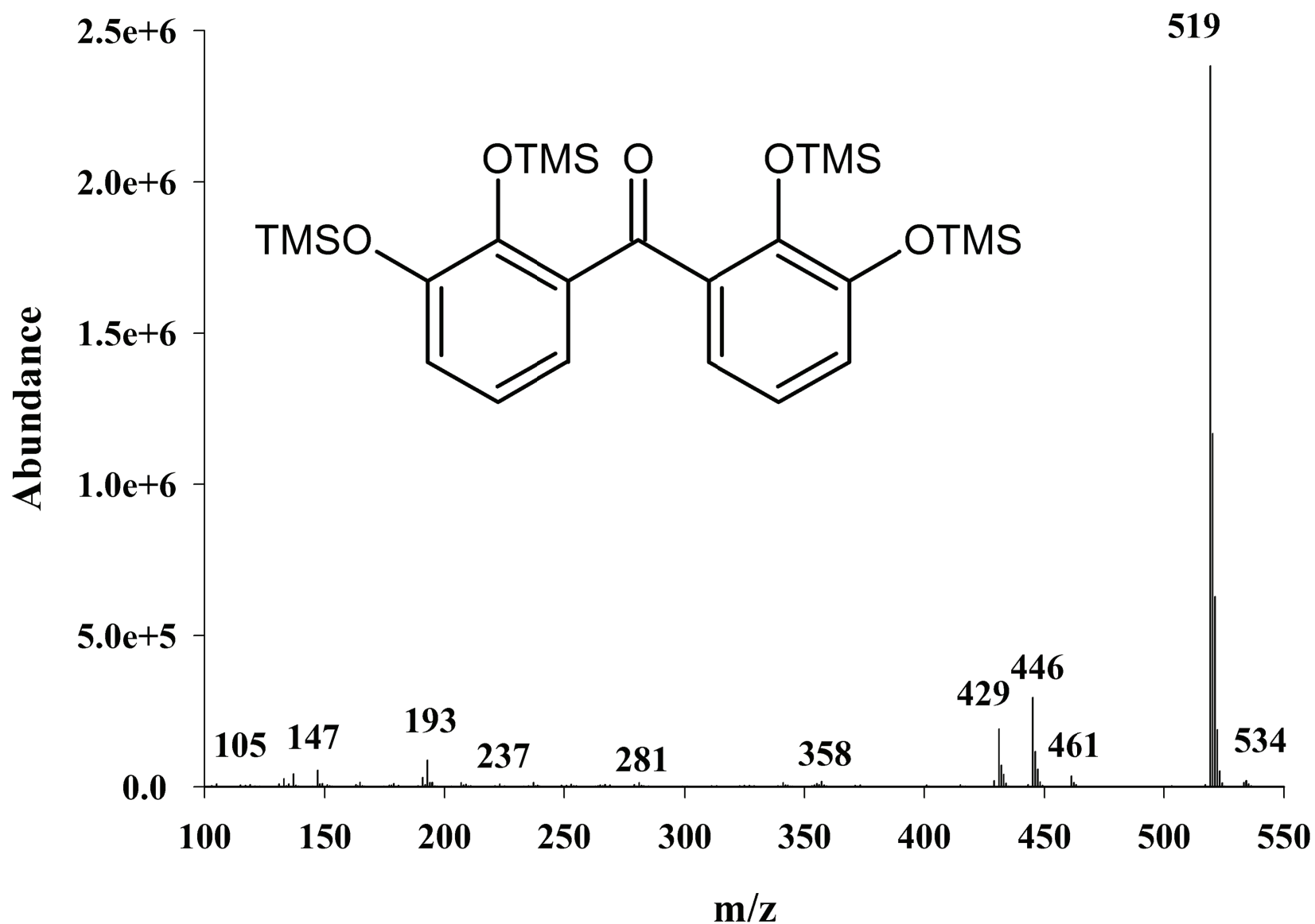


Fig. S10 Mass spectrum of the TMS-derived major metabolite produced from benzophenone by a coupled reaction composed of BphAE_{B356} plus BphB_{B356}. Based on spectral features, the metabolite was identified 2,2',3,3'-tetrahydroxybenzophenone.