

Figure A in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the wild type enzyme. $[M+H]^+ = 312$ m/z, $[M+Na]^+ = 334$ m/z, $[M+K]^+ = 350$ m/z

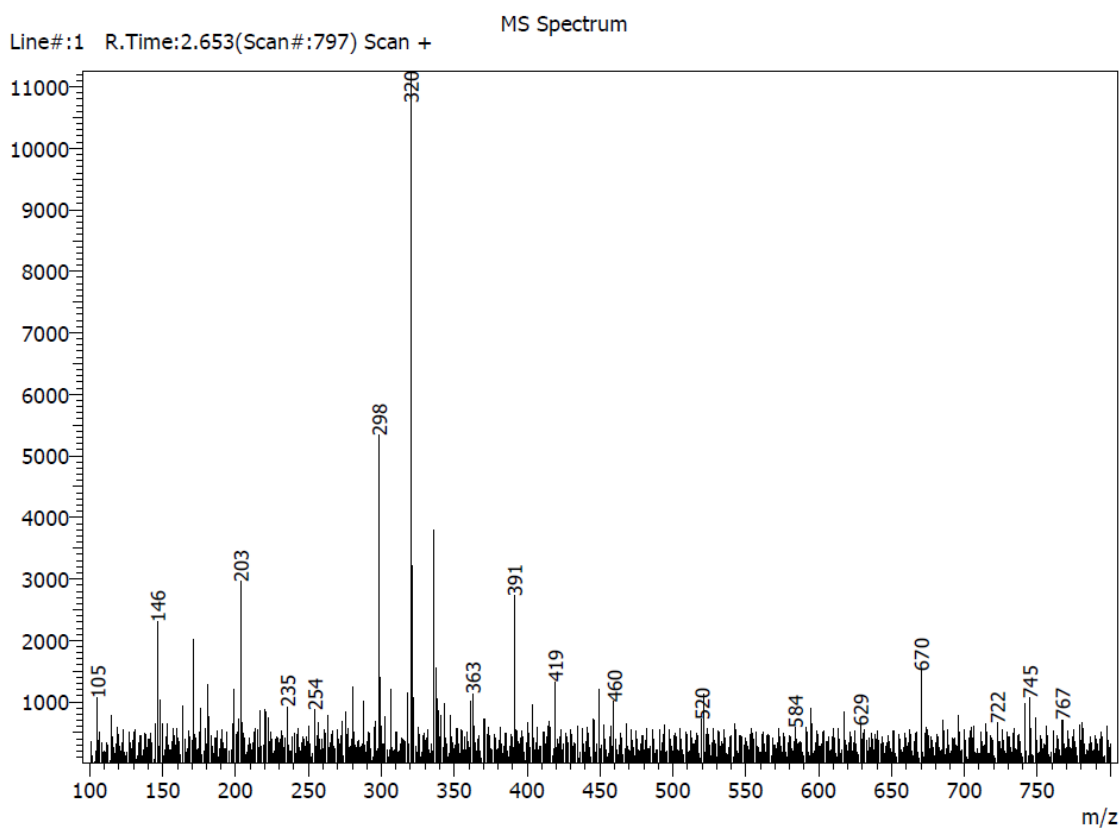
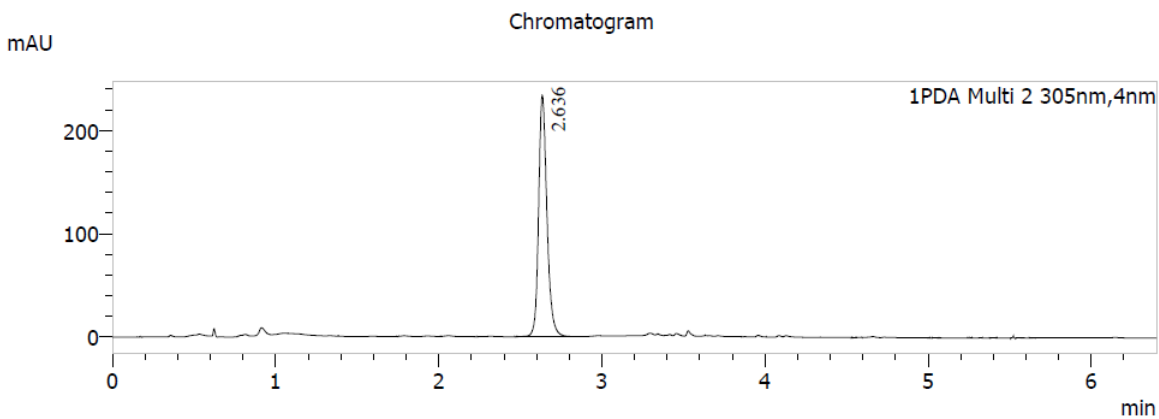


Figure B in S1 File. HPLC (UV) chromatogram and MS analysis of the blank reaction (50 mM sodium phosphate buffer pH 7). $[M+H]^+ = 298$ m/z, $[M+Na]^+ = 320$ m/z

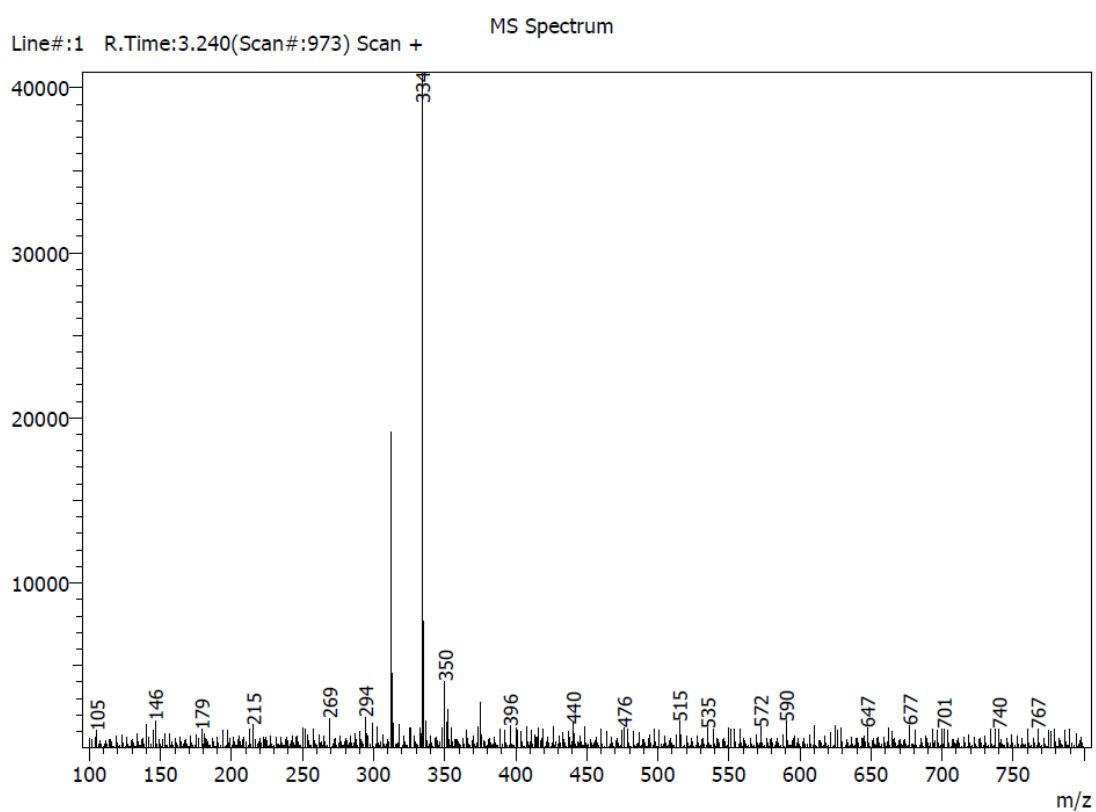
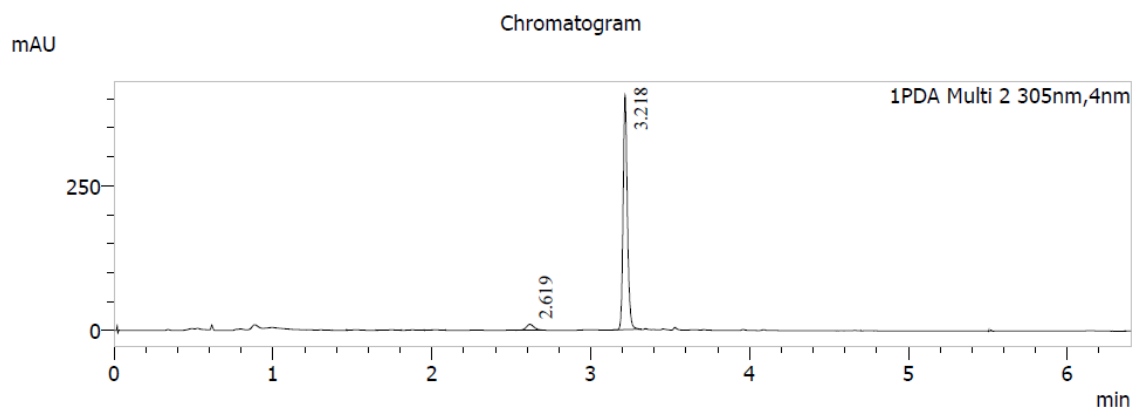


Figure C in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the H15A variant.

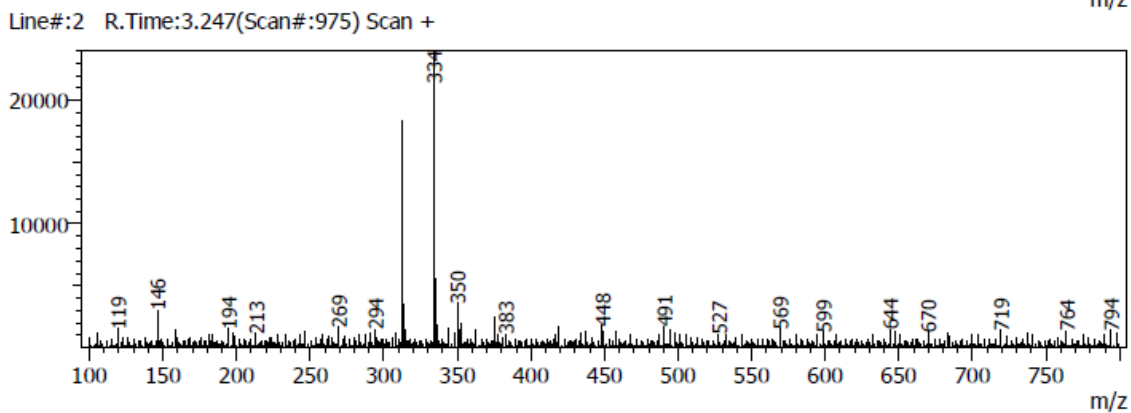
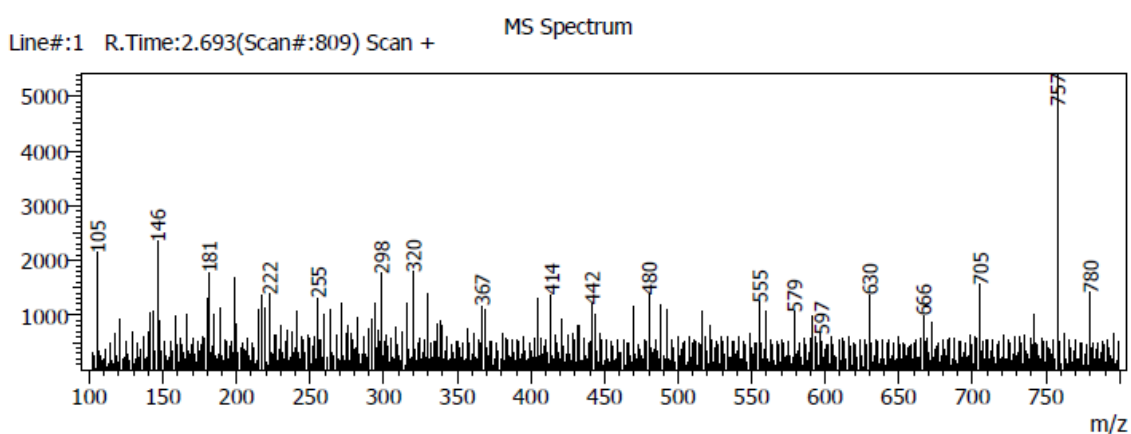
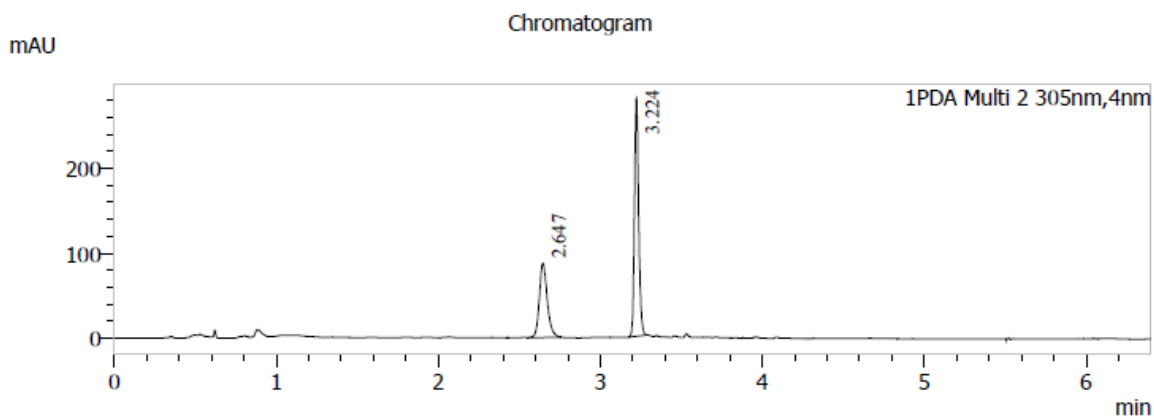


Figure D in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the H15N variant.

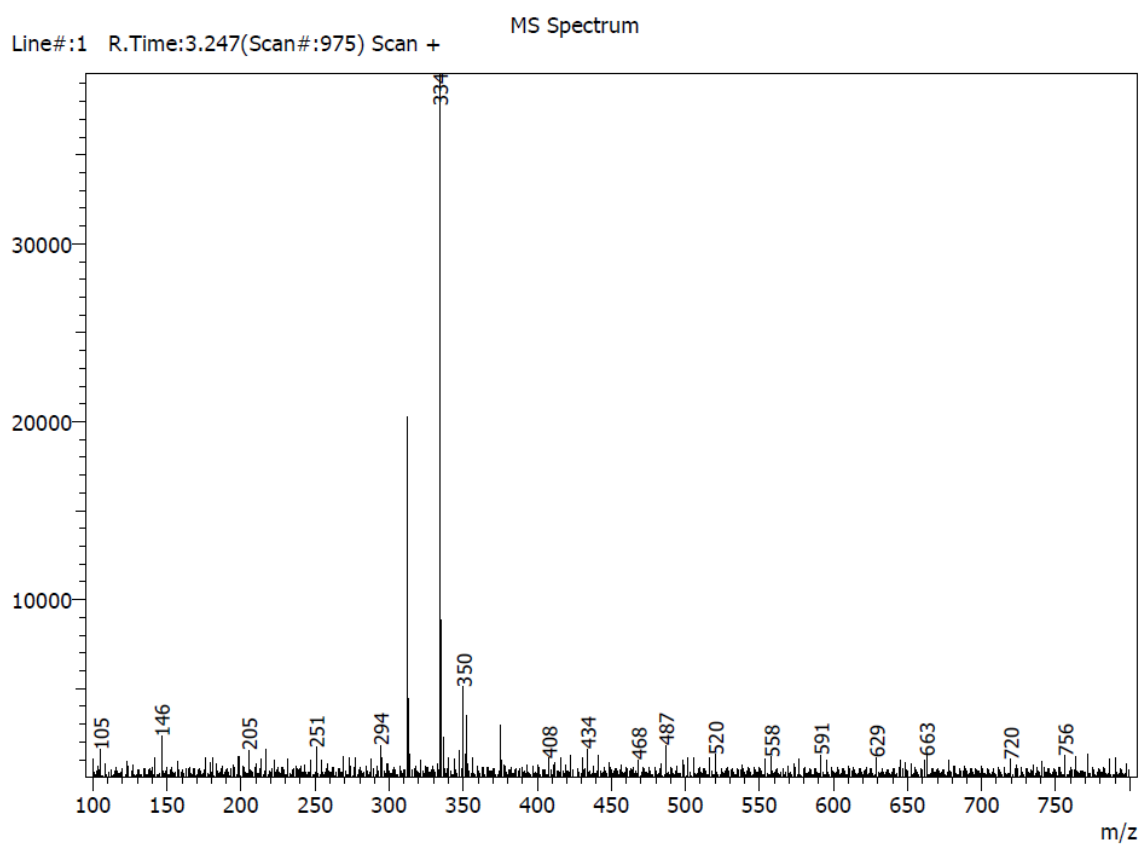
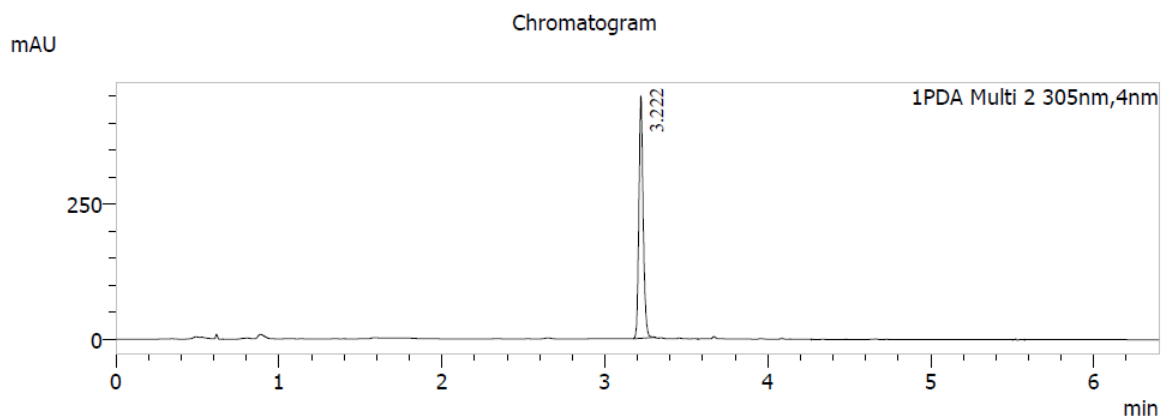


Figure E in S1 File. HPLC (MS) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the R24A variant.

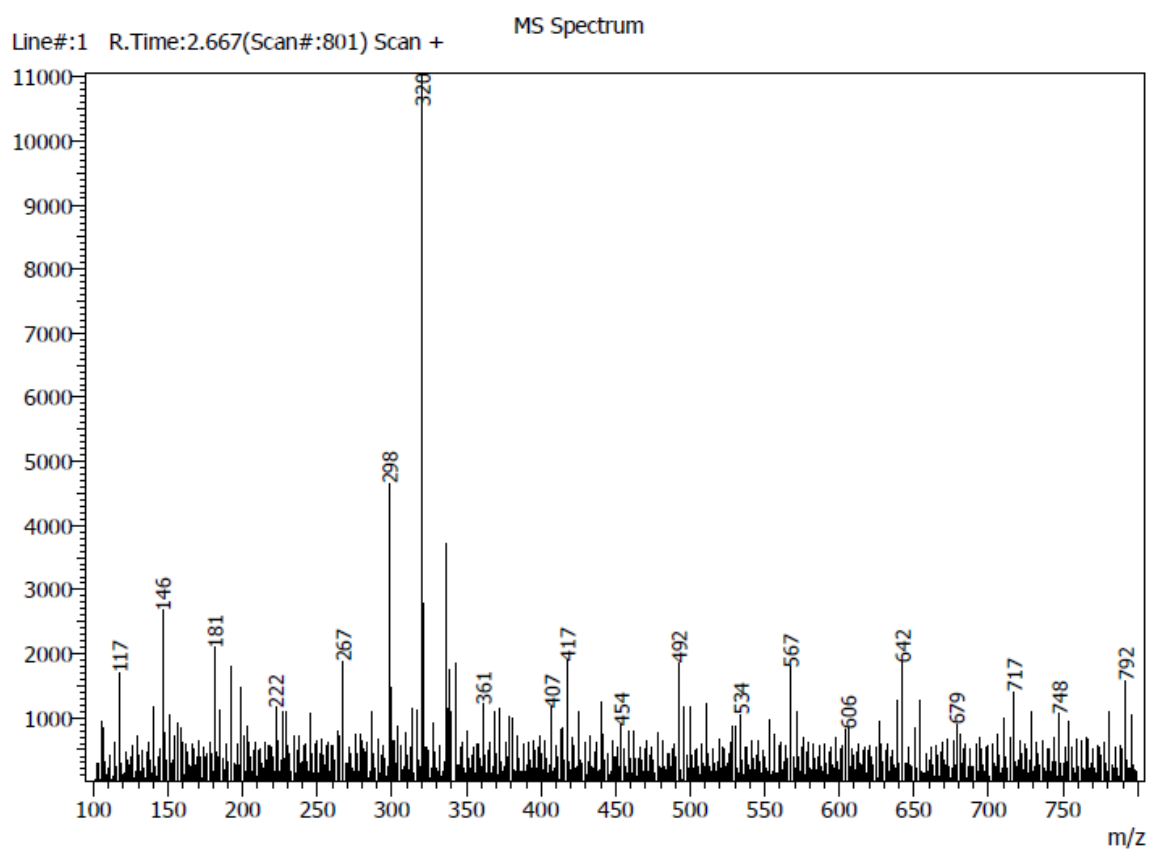
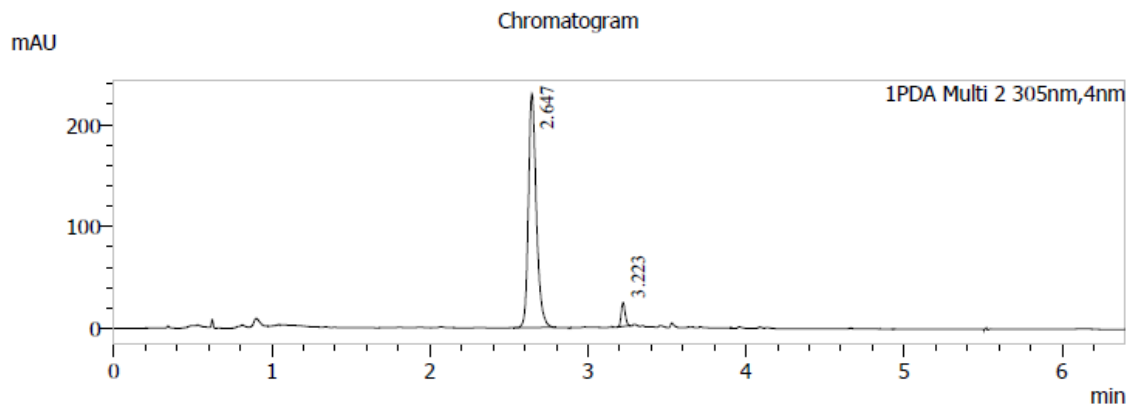


Figure F in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the H117A variant.

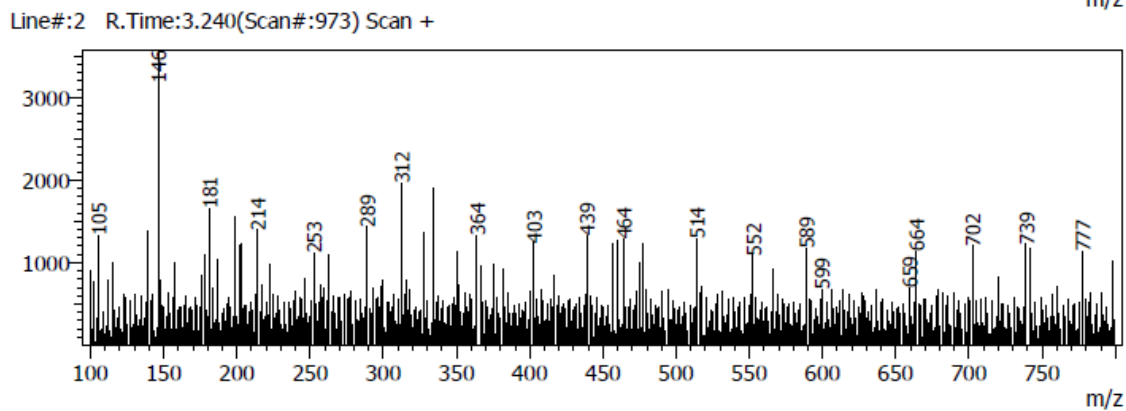
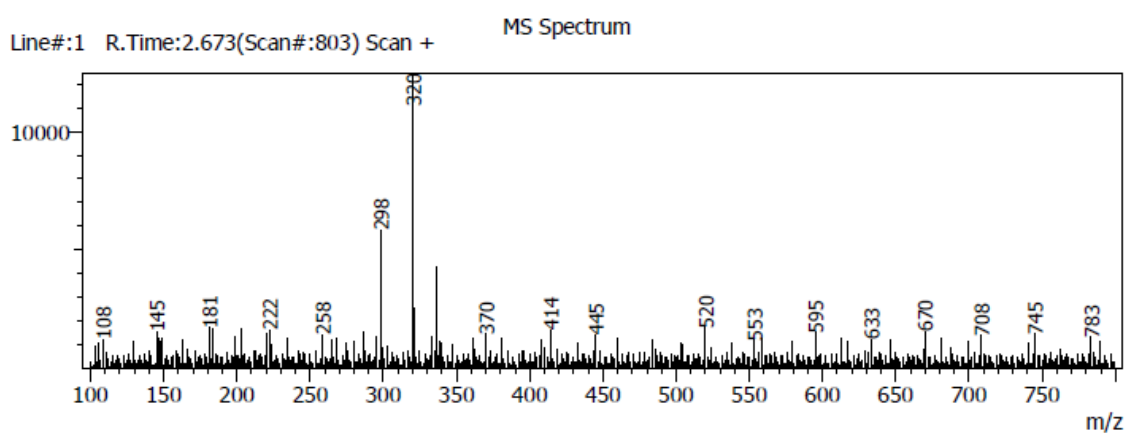
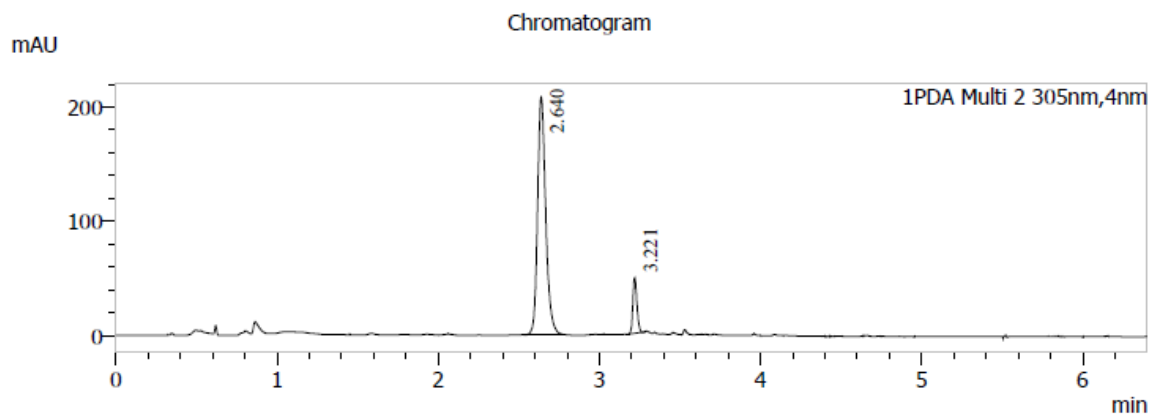


Figure G in S1 File. HPLC (MS) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the H117S variant.

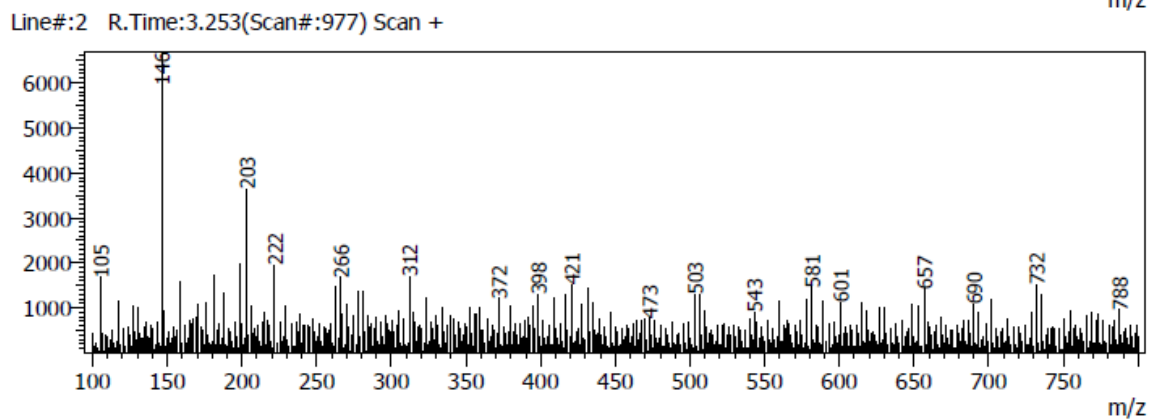
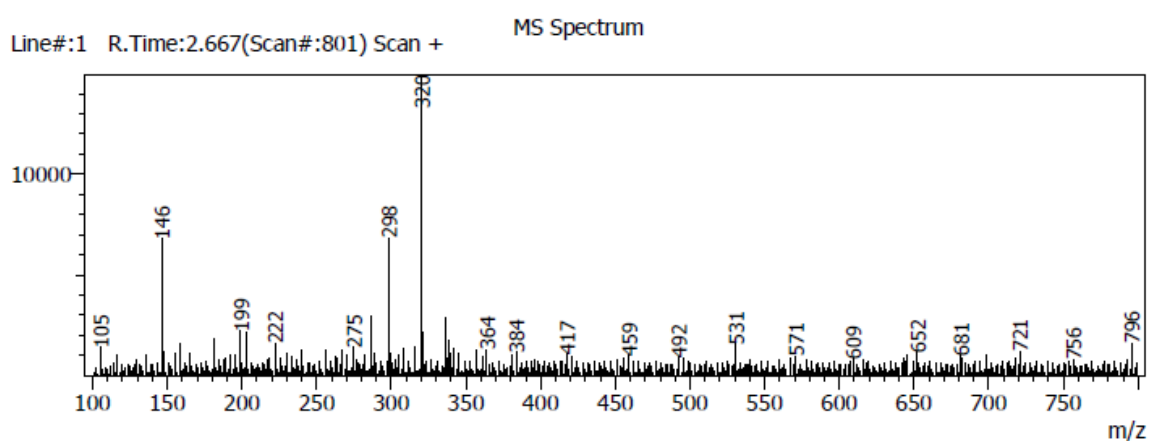
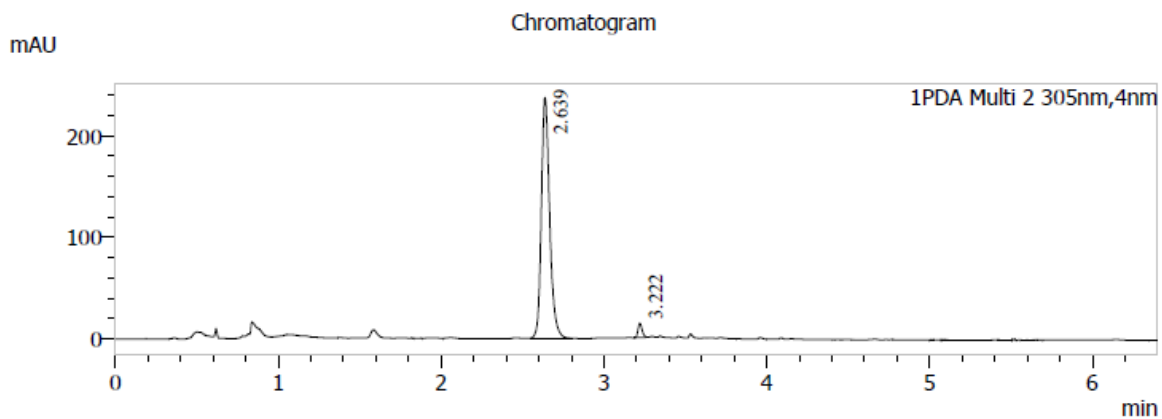


Figure H in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the H120A variant.

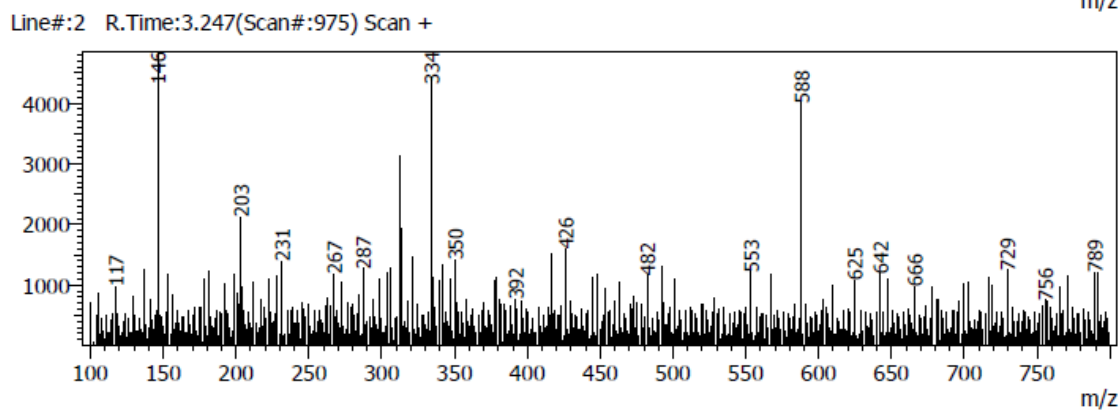
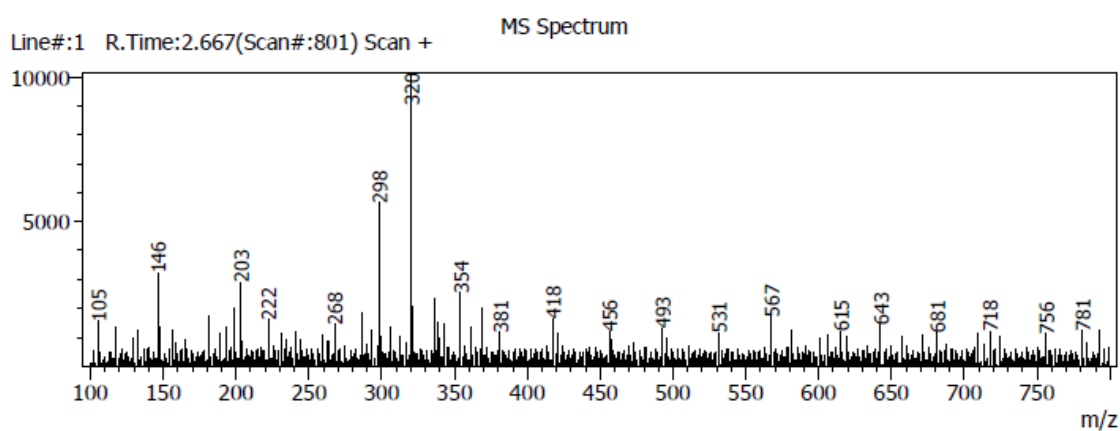
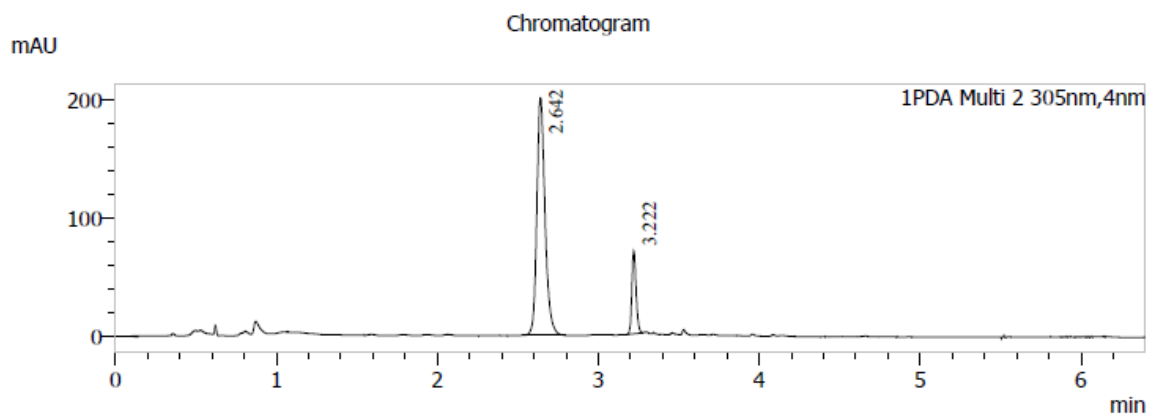


Figure I in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the H120N variant.

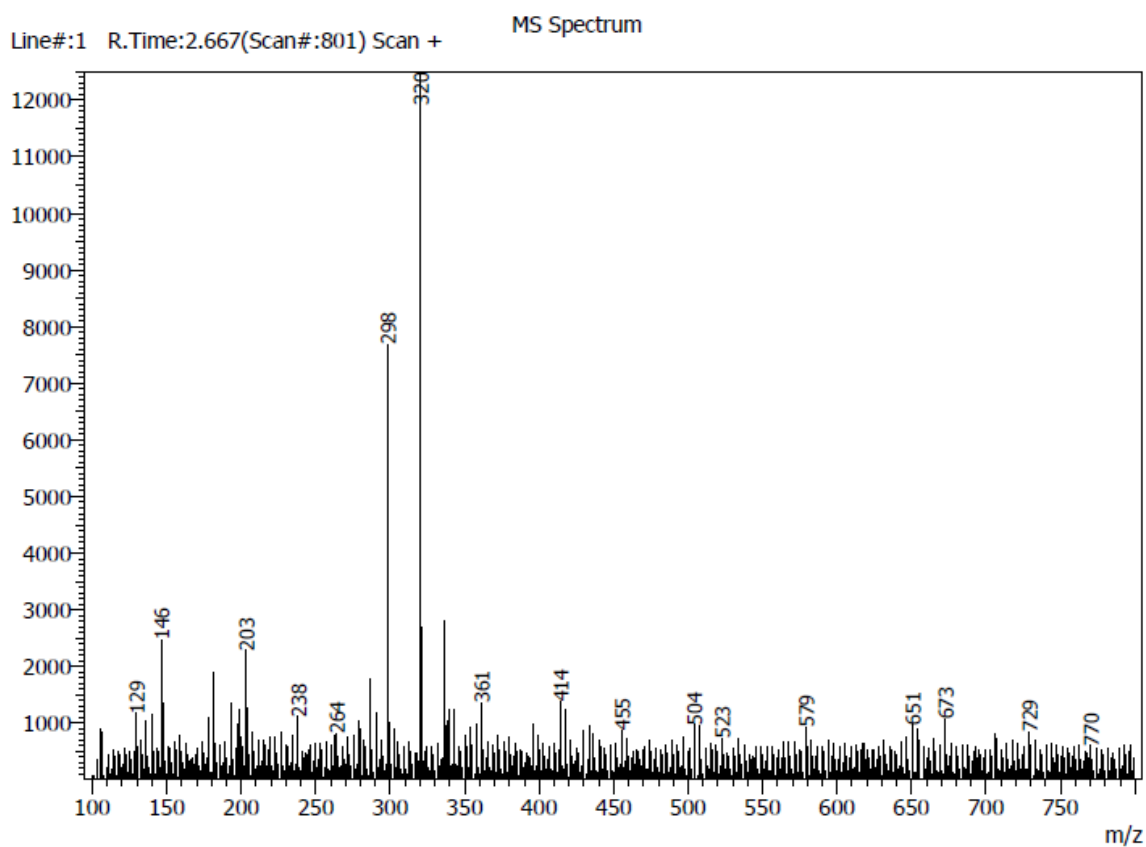
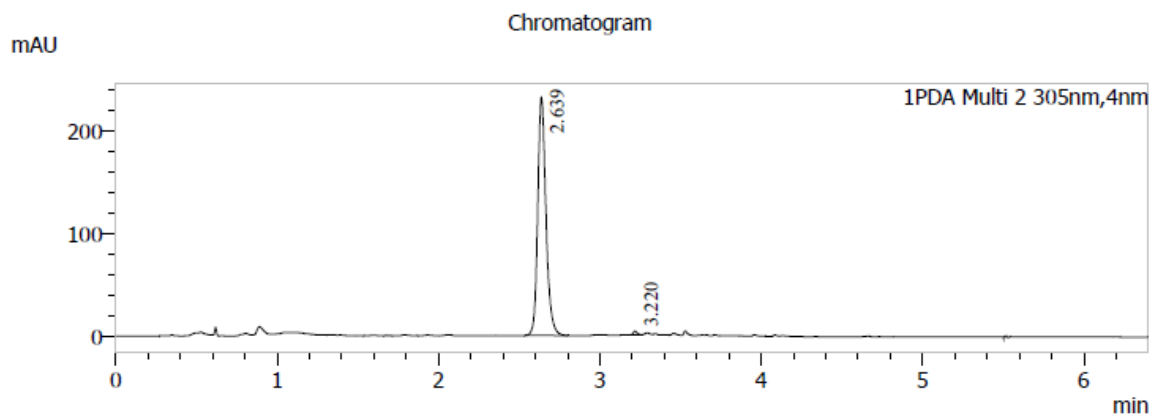


Figure J in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the R121A variant.

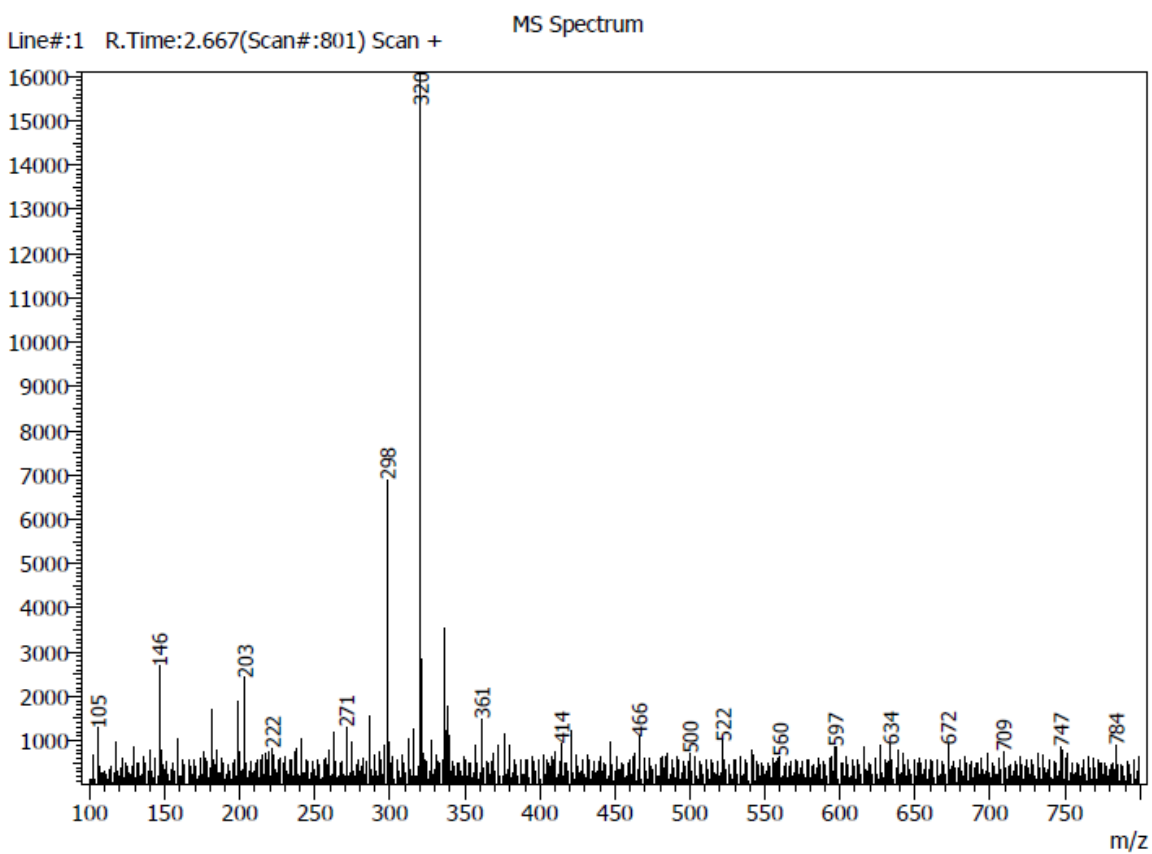
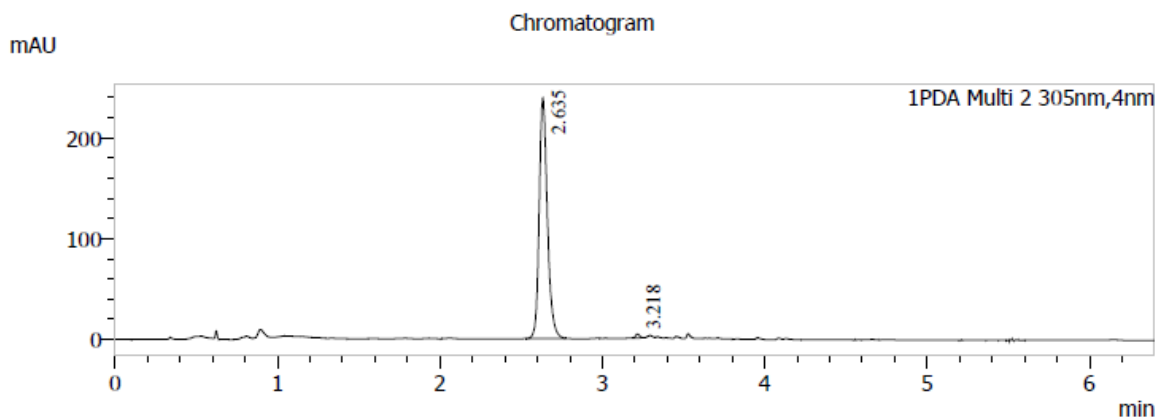


Figure K in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the R121L variant.

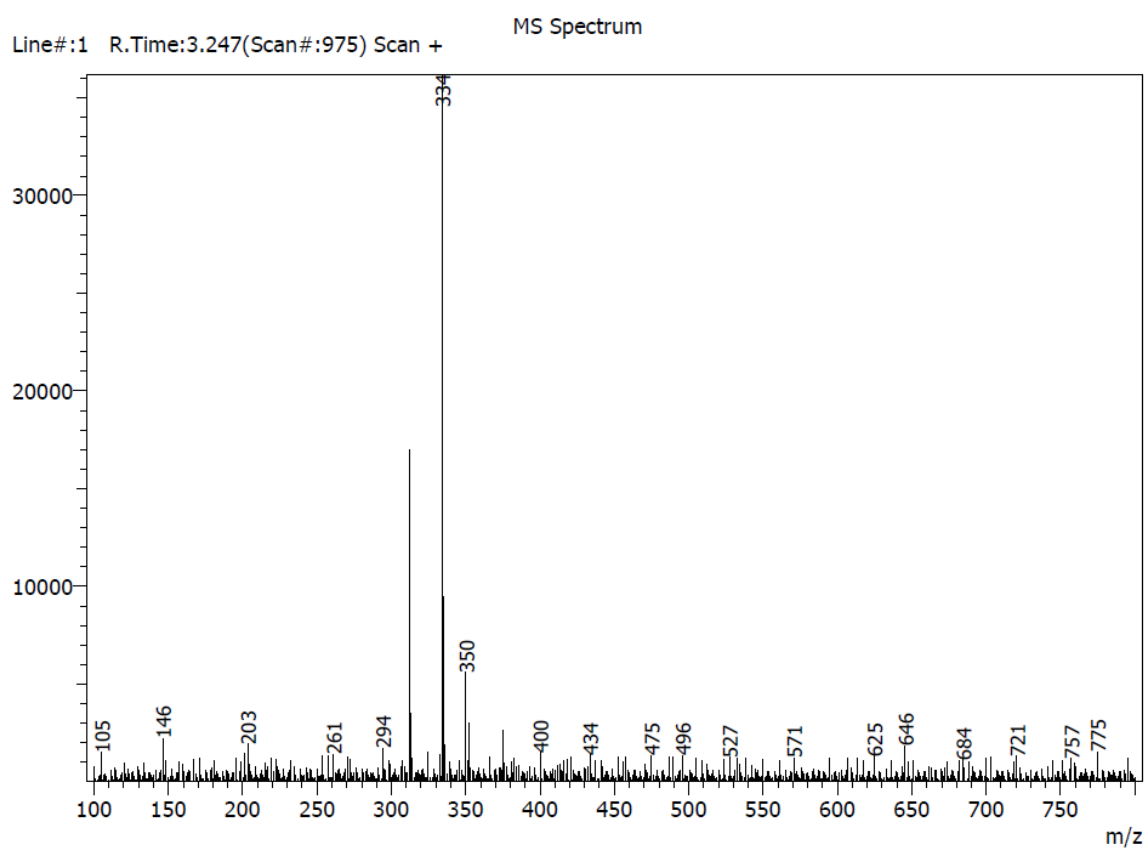
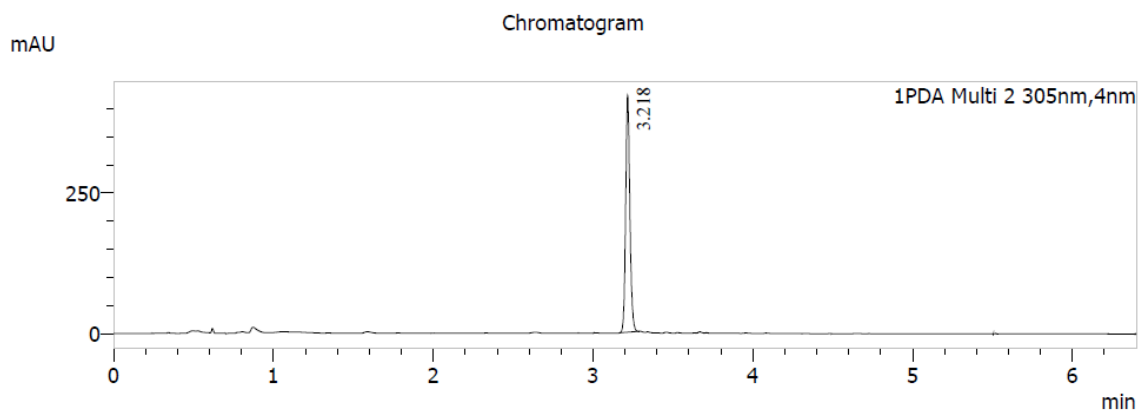


Figure L in S1 File. HPLC (UV) chromatogram and MS analysis of the conversion of *N*-(4,7-dihydroxy-2-oxo-2*H*-chromen-3-yl)benzamide catalyzed by the Y216F variant.