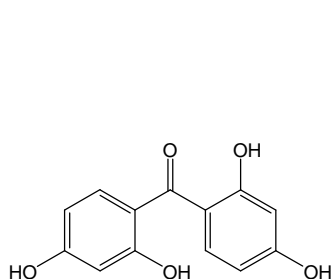


紫外線吸収剤

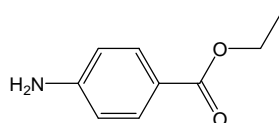
Ultraviolet absorbers

紫外線吸収剤は紫外線を吸収し、それを熱エネルギーに変換することで、日焼けを防止する物質です。CAPCELL CORE C₁₈ S2.7 を用いて、7種類の紫外線吸収剤を分離した例を示します。グラジエント条件により5分以内に良好な分離が得られました。

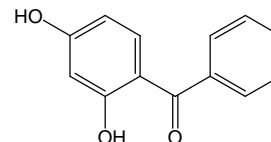
Ultraviolet (UV) absorbers protect skin by absorbing ultraviolet radiant energy, then dissipating the energy in a harmless form. CAPCELL CORE C₁₈ S2.7 could efficiently separate seven UV absorbers within five minutes under gradient conditions.



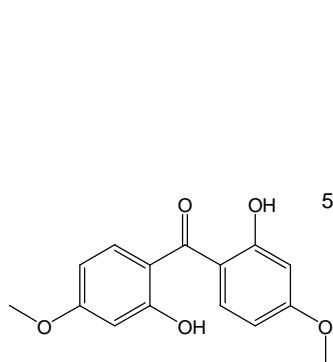
1. 2,2',4,4'-テトラヒドロキシベンゾフェノン (50 µg/mL)
2,2',4,4'-Tetrahydroxy benzophenone (M.W. 246.2)



2. *p*-アミノ安息香酸エチル (50 µg/mL)
Ethyl *p*-aminobenzoate (M.W. 165.2)

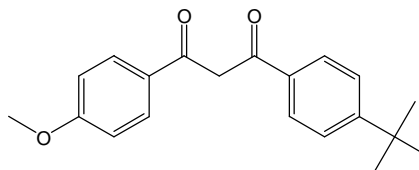


3. 2,4-ジヒドロキシベンゾフェノン (50 µg/mL)
2,4-Dihydroxybenzophenone (M.W. 214.2)

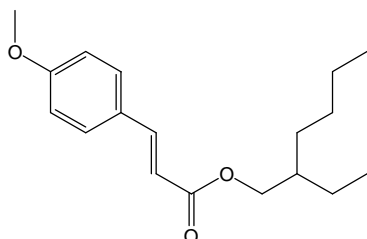


5. 2-ヒドロキシ-4-メトキシベンゾフェノン (50 µg/mL)
2-Hydroxy-4-methoxy benzophenone (M.W. 228.2)

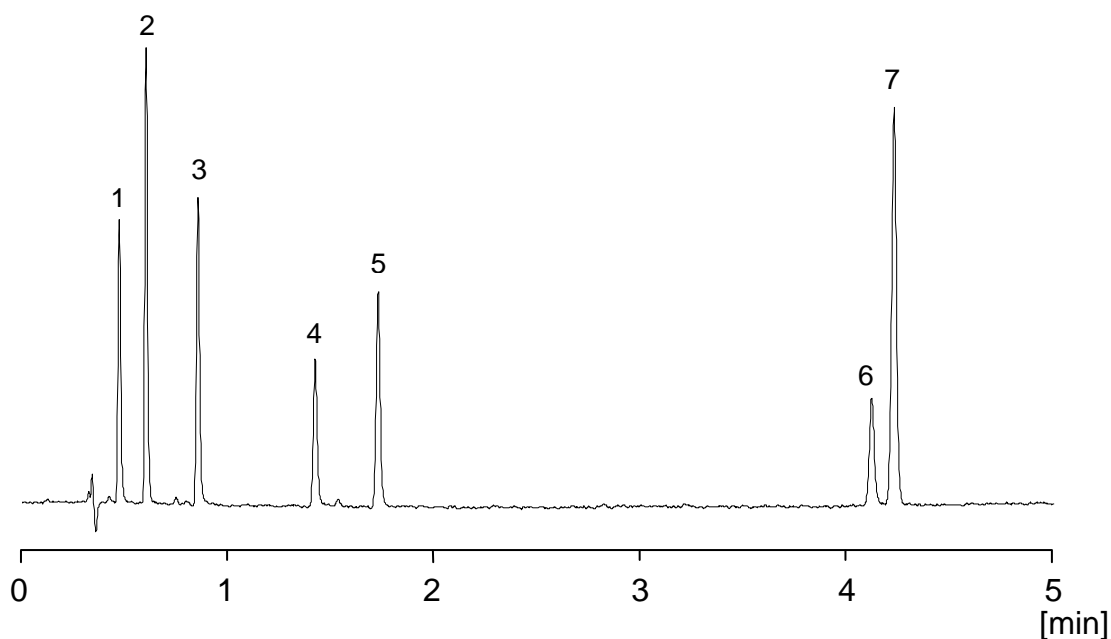
4. 2,2'-ジヒドロキシ-4,4'-ジメトキシベンゾフェノン (50 µg/mL)
2,2'-Dihydroxy-4,4'-dimethoxybenzophenone (M.W. 274.3)



6. 1-(*p*-*t*-ブチルフェニル)-3-(*p*-メトキシフェニル)-1,3-プロパンジオン (50 µg/mL)
1-(*p*-*t*-Butylphenyl)-3-(*p*-methoxyphenyl)-1,3-propanedione (M.W. 310.4)



7. 4-メトキシけい皮酸2-エチルヘキシル (50 µg/mL)
2-Ethylhexyl 4-methoxycinnamate (M.W. 290.4)



【HPLC Conditions】

Column : CAPCELL CORE C₁₈ S2.7 ; 2.1 mm i.d. x 100 mm
Mobile phase : A) H₂O, B) CH₃CN
 B 50 % (0 min) → 90 % (4.5 min) → 50 % (4.6 min) Gradient
Flow rate : 600 μL/min
Temperature : 40 °C
Detection : UV 310 nm
Inj. vol. : 2 μL
Sample dissolved in : Each standard compound was separately dissolved in CH₃CN
 at 1 mg/mL. 50 μL of all the solution were added together,
 and diluted to 1 mL with the H₂O.
 ※ 1 μg/mL = 1 ppm