

Suppl. 5 Information of all authentic standards

Betaine (C₅H₁₁NO₂, M.W. 117.15, Cas. 107-43-7, 98%), 1-Kestose (C₁₈H₃₂O₁₆, M.W. 504.44 Cas. 470-69-9, 98%), nystose (C₂₄H₄₂O₂₁, M.W. 666.58 Cas. 13133-07-8, 98%), quinic acid (C₇H₁₂O₆, M.W. 192.17 Cas. 77-95-2, 97%), malic acid (C₄H₆O₅, M.W. 134.09 Cas. 6915-15-7, 98%), citric acid (C₆H₈O₇, M.W. 192.12 Cas. 77-92-9, 98%), 1,2-Benzenediol (C₆H₆O₂, M.W. 110.11 Cas. 120-80-9, 98%), 3,4-dihydroxybenzaldehyde (C₇H₆O₃, M.W. 138.12 Cas. 139-85-5, 97%), cis-4-hydroxycinnamic acid (C₉H₈O₃, M.W. 164.16 Cas. 4501-31-9, 98%), eriodictyol 7-O-glucoside (C₂₁H₂₂O₁₁, M.W. 450.39 Cas. 38965-51-4, 98%), isochlorogenic acid B (C₂₅H₂₄O₁₂, M.W. 516.455 Cas. 14534-61-3, 97%), eleutheroside E1 (C₂₈H₃₆O₁₃, M.W. 580.6 Cas. 7374-79-0, 98%), apigenin 7-O-glucoside (C₂₁H₂₀O₁₀, M.W. 432.381 Cas. 578-74-5, 97%), okanin (C₁₅H₁₂O₆, M.W. 288.3 Cas. 484-76-4, 98%), lobetyolin (C₂₀H₂₈O₈, M.W. 396.4 Cas. 136085-37-5, 98%), imperatorin (C₁₆H₁₄O₄, M.W. 270.284 Cas. 482-44-0, 97%), costunolide (C₁₅H₂₀O₂, M.W. 232.32 Cas. 553-21-9, 98%), alantolactone (C₁₅H₂₀O₂, M.W. 232.32 Cas. 546-43-0, 98%), zerumbone (C₁₅H₂₂O, M.W. 218.33 Cas. 471-05-6, 98%), palmitic acid (C₁₆H₃₂O₂, M.W. 256.43 Cas. 57-10-3, 97%), oleic acid (C₁₈H₃₄O₂, M.W. 282.46 Cas. 112-80-1, 98%), stearic acid (C₁₈H₃₆O₂, M.W. 284.484 Cas. 57-11-4, 97%), α -Linolenic acid (C₁₈H₃₀O₂, M.W. 278.43 Cas. 463-40-1, 98%), linoleic acid (C₁₈H₃₂O₂, M.W. 280.45 Cas. 60-33-3, 97%) and (9Z,12Z)-N-Benzyl octadeca-9,12-dienamide (C₂₅H₃₉NO, M.W. 369.6 Cas. 18286-71-0, 98%) were obtained from Herbest Biotech Co., Ltd (Baoji, China). D-gluconic acid (C₆H₁₂O₇, M.W. 196.16 Cas. 526-95-4, 97%), resorcine (C₆H₆O₂, M.W. 110.11 Cas. 108-46-3, 97%), 3,4-dihydroxy-5-methoxybenzoic acid (C₈H₈O₅, M.W. 184.15 Cas. 3934-84-7, 97%) and 3-hydroxybenzoic acid (C₇H₆O₃, M.W. 138.12 Cas. 99-06-9, 97%) were obtained from Sigma-Aldrich Co., Ltd. (Shanghai, China). Gallic acid (C₇H₆O₅, M.W. 170.12 Cas. 149-91-7, 97%), 5-caffeoylquinic acid (C₁₆H₁₈O₉, M.W. 354.31 Cas. 906-33-2, 97%), chlorogenic acid (C₁₆H₁₈O₉, M.W. 354.31 Cas. 327-97-9, 97%), caffeic acid (C₉H₈O₄, M.W. 180.16 Cas. 331-39-5, 97%), cryptochlorogenic acid (C₁₆H₁₈O₉, M.W. 354.31 Cas. 905-99-7, 97%), syringic acid (C₉H₁₀O₅, M.W. 198.17 Cas. 530-57-4, 97%), (+) taxifolin (C₁₅H₁₂O₇, M.W. 304.25 Cas. 480-18-2, 97%), orientin (C₂₁H₂₀O₁₁, M.W. 448.38 Cas. 28608-75-5, 97%), quercetin 3-O- β -D-glucuronide (C₂₁H₁₈O₁₃, M.W. 478.36 Cas. 22688-79-5, 97%), luteoloside (C₂₁H₂₀O₁₁, M.W. 448.38 Cas. 5373-11-5, 97%), hyperoside (C₂₁H₂₀O₁₂, M.W. 464.379 Cas. 482-36-0, 97%), S-naringenin-7-O- β -D-glucoside (C₂₁H₂₂O₁₀, M.W. 434.39 Cas. 529-55-5, 97%), isochlorogenic acid C (C₂₅H₂₄O₁₂, M.W. 516.45 Cas. 57378-72-0, 97%), isochlorogenic acid A (C₂₅H₂₄O₁₂, M.W. 516.45 Cas. 2450-53-5, 97%), S-naringenin (C₁₅H₁₂O₅, M.W. 272.25 Cas. 480-41-1, 97%), diosmetin (C₁₆H₁₂O₆, M.W. 300.267 Cas. 520-34-3, 97%), apigenin (C₁₅H₁₀O₅, M.W. 270.24 Cas. 520-36-5, 97%), chrysoeriol (C₁₆H₁₂O₆, M.W. 300.263 Cas. 491-71-4, 97%) and 6-gingerol (C₁₇H₂₆O₄, M.W. 294.39 Cas. 23513-14-6, 97%) were obtained from Chengdu Alfa Biotechnology Co., Ltd. (Chengdu, China). L-leucine (C₆H₁₃NO₂, M.W. 131.17 Cas. 61-90-5, 97%), L-phenylalanine (C₉H₁₁NO₂, M.W. 165.19 Cas. 63-91-2, 97%) and L-proline (C₅H₉NO₂, M.W. 115.13 Cas. 147-85-3, 97%) were

obtained from J&K Scientific Co., Ltd. (Beijing, China). Protocatechuic acid ($C_7H_6O_4$, M.W. 154.12 Cas. 99-50-3, 97%), vicenin-2 ($C_{27}H_{30}O_{15}$, M.W. 594.52 Cas. 23666-13-9, 97%) and p-Cresol (C_7H_8O , M.W. 108.13 Cas. 106-44-5, 97%) were obtained from Sichuan Weikeqi Biological Technology Co., Ltd. (Chengdu, China). Daphnetin ($C_9H_6O_4$, M.W. 178.14 Cas. 486-35-1, 97%), 5,7-dihydroxychromone ($C_9H_6O_4$, M.W. 178.14 Cas. 31721-94-5, 97%), coniferaldehyde ($C_{10}H_{10}O_3$, M.W. 178.18 Cas. 20649-42-7, 97%), viscidulin I ($C_{15}H_{10}O_7$, M.W. 302.24 Cas. 92519-95-4, 97%), luteolin ($C_{15}H_{10}O_6$, M.W. 286.24 Cas. 491-70-3, 97%) and chrysin ($C_{15}H_{10}O_4$, M.W. 254.24 Cas. 480-40-0, 97%) were obtained from BioBioPha Co., Ltd. (Kunming, China). Sucrose ($C_{12}H_{22}O_{11}$, M.W. 342.3, Cas. 57-50-1, 98%) was obtained from TCI Chemical Co. (Shanghai, China). Ferulic acid ($C_{10}H_{10}O_4$, M.W. 194.19 Cas. 1135-24-6, 97%) and agrimol B ($C_{37}H_{46}O_{12}$, M.W. 696.31 Cas. 55576-66-4, 97%) were obtained from Chinese Medicine Solid State Manufacturing Technology (Nanchang, China). Emodin ($C_{15}H_{10}O_5$, M.W. 270.24 Cas. 518-82-1, 97%), atractylenolide III ($C_{15}H_{20}O_3$, M.W. 248.32 Cas. 73030-71-4, 97%) and 4-hydroxybenzoic acid ($C_7H_6O_3$, M.W. 138.12 Cas. 99-96-7, 97%) was obtained from National Institute for the Control of Pharmaceutical and Biological Products (Beijing, China). All other reagents used in this study were purchased as analytical grade from the ChengDu Chron Chemicals Co., Ltd (Sichuan, China).