Supporting Information:

Detailed Procedure for Bromination

(i) Bromination of *o*-Cresol (**3**) to 4-Bromo-*o*-cresol

To a suspension of 0.091 g (0.5 mmol) of V_2O_5 in 24 mL of acetonitrile-water (1:1) was added 1.8 mL (15.9 mmol) of 30% hydrogen peroxide and stirred for *ca.*5 min in an ice bath (~5 °C). To the clear solution were added sequentially 0.97 g (3 mmol) of tetrabutylammonium bromide and 0.108 g (1 mmol) *o*-cresol (**3**), and the whole was stirred for 1.5 h (~5 °C, ice bath). The solvent was removed *in vacuo* and the residue extracted with ethylacetate (3 x 20 mL). The organic extract was first washed with 5% sodium metabisulphite solution (2 x 10 mL) then with water (2 x 10 mL) and finally dried over anhydrous Na_2SO_4. The solvent was removed *in vacuo* and the residue was purified by column chromatography (silica gel, hexane : ethylacetate = 24:1) to afford the product, 4-bromo-*o*-cresol. The yield was 0.173g (92 %).

M.P. 62 °C (Lit[1] 64 °C).

Anal. calcd for C_7H_7BrO: C, 44.95; H, 3.77; Br, 42.72.

Found: C, 45.02; H, 3.73; Br, 42.65%.

^{1}H-NMR, δ_H ($CDCl_3$): 2.21 (s, 3H, -C*H*$_3$), 4.92 (brs, 1H, -O*H*), 6.63 (d, 1H, J = 8.4 Hz, Ar*H*), 7.15 (dd, 1H, J_1= 2.2 Hz, J_2 = 8.4 Hz, Ar*H*), 7.24 (d, 1H, J = 2.3 Hz, Ar*H*).

[1]Buckingham, J and Macdonald, F. *Dictionary of Organic Compounds*, vol.2, Chapman and Hall, London, **1996**, pp.1050.

(ii) Bromination of 4-Benzyloxy-4′,6′-dimethoxy-2′-hydroxychalcone (**13**) to 4-Benzyloxy-3′-bromo-4′,6′-dimethoxy-2′-hydroxychalcone (**16**)

To a stirred suspension of 0.025 g (0.14 mmol) of V_2O_5 in 7 mL acetonitrile-water (1:1) was added 0.5 mL (4.42 mmol) of 30% hydrogen peroxide in an ice-bath (~5 °C). After 5 min, 0.271 g (0.84 mmol) of tetrabutylammonium bromide was added to the above solution followed by the addition of 0.11 (0.28 mmol) of 4-benzyloxy-4′,6′-dimethoxy -2′-hydroxychalcone (**13**) and the whole was stirred for 1h (at ~5 °C, ice bath). The solvent was removed *in vacuo* and the residue extracted with dichloromethane (3 x 10 mL). The organic extract was first washed with 5% sodium metabisulphite solution (2 x 5 ml), then with water (2 x 10 mL) and finally dried over anhydrous Na_2SO_4. The solvent was removed *in vacuo* and the residue was purified by column chromatography (silica gel, petroleum ether : ethylacetate = 9 : 1) to afford the product, 4-benzyloxy-3′-bromo-4′,6′-dimethoxy-2′-hydroxychalcone (**16**) as yellow crystals. The yield was 0.095 g (72%). M.P. 197-198°C.

Anal. calcd for $C_{24}H_{21}BrO_5$: C, 61.42; H, 4.52; Br, 17.02

Found: C, 61.35; H, 4.47; Br, 17.11%

^{1}H-NMR, δ_H ($CDCl_3$): 3.97 (s, 3H, O*CH*$_3$), 3.98 (s, 3H, O*CH*$_3$), 5.10 (s, 2H, -O*CH*$_2$Ph), 6.03 (s, 1H, 5′H), 6.99 (d, 2H, J = 8.7 Hz, Ar*H*), 7.34-7.45 (m, 5H, Ar*H*), 7.54 (d, 2H, J = 8.7 Hz, Ar*H*), 7.74 (d, 1H, J =15.5 Hz, >C*H*=CH-), 7.82 (d, 1H, J = 15.5 Hz, >CH=C*H*-), 14.98 (s, 1H, OH, D_2O exchangeable)

^{13}C-NMR, δ_C ($CDCl_3$): 56.05, 56.28, 70.08, 87.11, 90.20, 106.87, 115.24 (2C), 124.54, 127.45 (2C), 128.16, 128.20, 128.65 (2C), 130.26 (2C), 136.38, 143.42, 160.71, 161.71, 162.16, 163.17, 192.61.