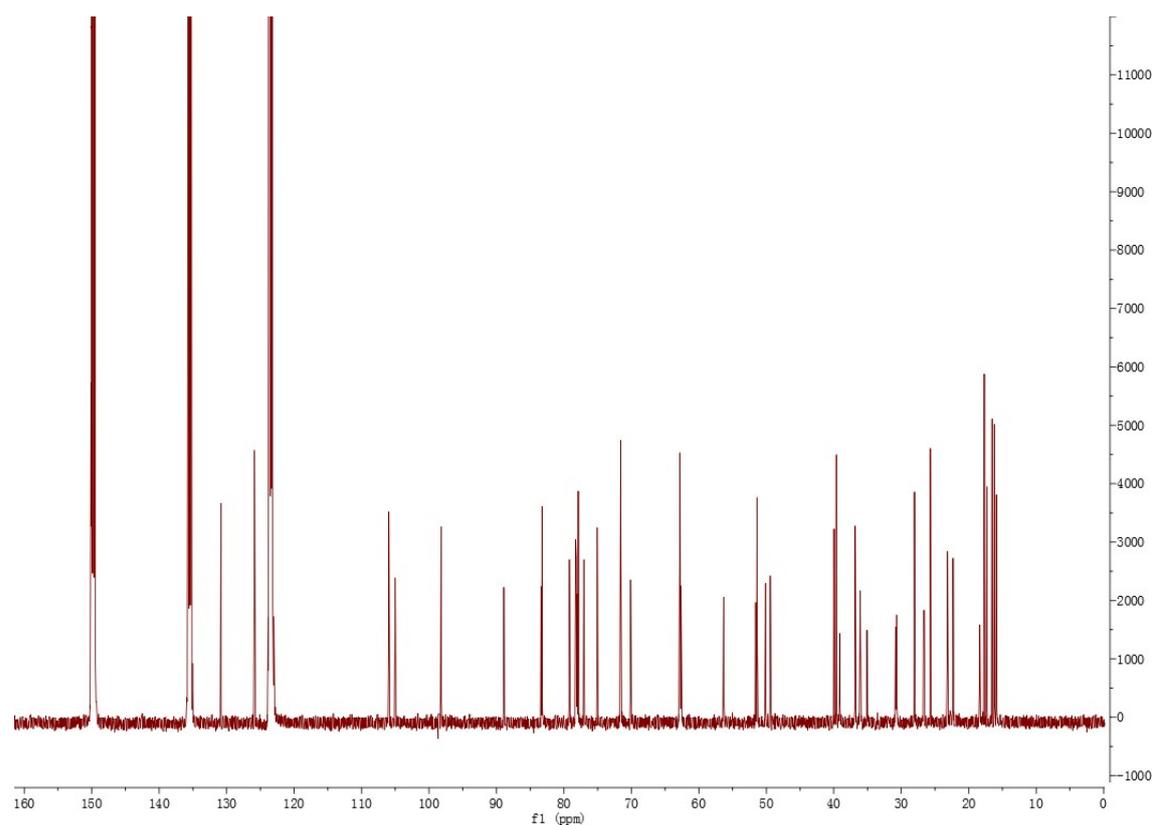
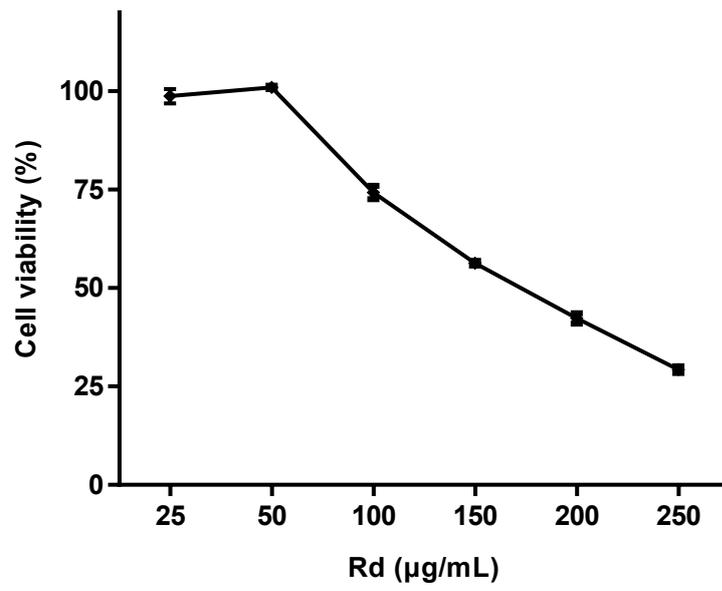


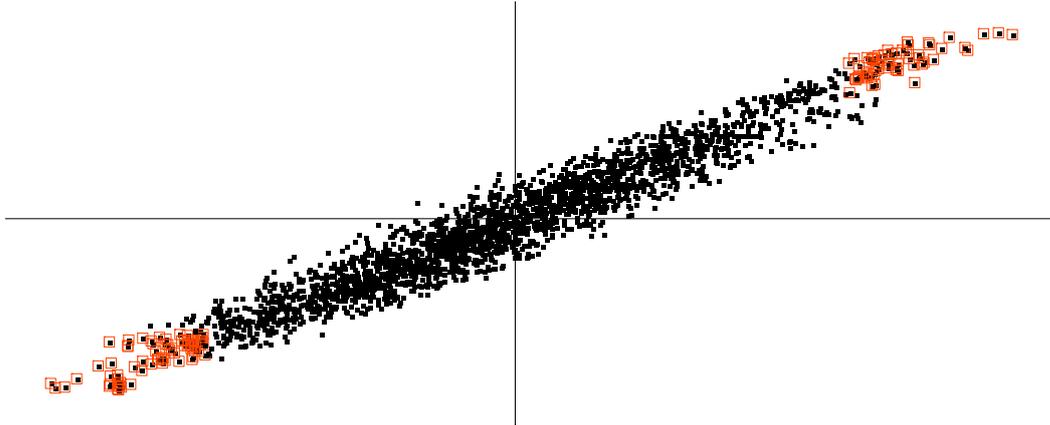
Supplementary Fig.1 The purity of Rd checked by HPLC. A. 50% methanol - water (v/v) solution; B. Rd. HPLC analysis was conducted on an Agilent Zorbax SB-C18 column (250×4.6 mm, $5 \mu\text{m}$) using an Agilent 1100 HPLC system (Agilent Technologies Inc, CA, USA). The column was maintained at 28°C and the detection wavelength was 203 nm. The mobile phase, at a flow rate of 1.0 mL/min, was composed of water (A) and acetonitrile (B). The column was eluted with a gradient of 21% B at 0 min, 21% B at 21 min, 28% B at 26 min, 32% B at 32 min, 32% B at 41 min, 38% B at 50 min, 38% B at 65 min, and 100% B at 66 min. The concentration of Rd was 1 mg/mL in 50% methanol - water (v/v) solution and the injection volume was 10 μL . As the results, the purity of Rd was 98.1%.



Supplementary Fig.2 The ¹³C NMR data of Rd detected by NMR spectrometer (BRUKER AVIII500M). The results were consistent with the previous literature.¹ In more detail: the ¹³C NMR (126 MHz, C₅D₅N) δ 130.97 (25), 126.01 (24), 106.09(1"), 105.15(1'), 98.33(1""), 89.03(3), 83.52(20), 83.37(2'), 79.32(3"), 78.40(5"), 78.32(3""), 78.29(5""), 78.14(3'), 78.01(5'), 77.17(2"), 75.19(2""), 71.72(4',4",4""), 70.25(12), 62.94(6',6"), 62.78(6""), 56.45(5), 51.71(17), 51.49(14), 50.25(9), 49.54(13), 40.09(8), 39.75(4), 39.26(1), 36.96(10), 36.19(22), 35.20(7), 30.96(11), 30.82(15), 28.16(28), 26.82(2), 26.70(16), 25.80(26), 23.28(23), 22.45(21), 18.49(6), 17.82(29), 17.43(18), 16.66(27), 16.33(19), 16.03(30).



Supplementary Fig.3 The effects of Rd on RBL-2H3 proliferation rates. Values are presented as means \pm SEM of three independent experiments.



Supplementary Fig.4 S-plot of 10 min post-injection between control and Rd groups in ES+ model.

References

1. W. K. Kim, S. Y. Song, W. K. Oh, S. Kaewsuwan, T. L. Tran, W. S. Kim and J. H. Sung, *Eur J Pharmacol*, 2013, **702**, 285-293.