Supplementary Data

Vitamin A has Anti-Oligomerization Effects on Amyloid-β In Vitro

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Supplementary Figure 1. SDS-PAGE of cross-linked Aβ42 oligomers after size exclusion chromatography (SEC). After cross-linking of amyloid-β (Aβ42) with or without retinoic acid, tris(2,2′-bipyridyl)dichlororuthenium(II) hexahydrate (Ru(bpy)) and ammonium persulfate were removed by SEC. The resulting products were analyzed by SDS-PAGE on a 10–20% gradient SDS gels. Bands were visualized using silver staining. Lane 1, Aβ42 alone (un-cross-linked); lane 2, Aβ42 alone (cross-linked) before SEC; lane 3, Aβ42 alone (cross-linked) after SEC; lane 4, Aβ42 with retinoic acid (250 μM) before SEC, and lane 5, Aβ42 with retinoic acid (250 μM) after SEC. Each gel is representative of each of three independent experiments.

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Supplementary Figure 2. SDS-PAGE of Aβ40 (A) or Aβ42 (B). Lane 1, Aβ alone (un-cross-linked); lane 2, Aβ alone (cross-linked); lane 3, Aβ with retinoic acid (25 μM); lane 4, Aβ with retinoic acid (50 μM); lane 5, Aβ with retinoic acid (100 μM); lane 6, Aβ with retinoic acid (150 μM); lane 7, Aβ with retinoic acid (250 μM); lane 8, Aβ with retinol (25 μM); lane 9, Aβ with retinol (50 μM); lane 10, Aβ with retinol (100 μM); lane 11, Aβ with retinol (150 μM); lane 12, Aβ with retinol (250 μM); lane 13, Aβ with retinol (25 μM); lane 14, Aβ with retinal (50 μM); lane 15, Aβ with retinal (100 μM); lane 16, Aβ with retinal (150 μM); lane 17, Aβ with retinal (250 μM); lane 18, Aβ with β-carotene (25 μM); lane 19, Aβ with β-carotene (50 μM); lane 20, Aβ with β-carotene (100 μM); lane 21, Aβ with β-carotene (150 μM); and lane 22, Aβ with β-carotene (250 μM). Each gel is representative of each of three independent experiments.