

SUPPLEMENTARY INFORMATIONS:

Overexpression of Insig-2 inhibits atypical antipsychotic-induced adipogenic differentiation and lipid biosynthesis in adipose-derived stem cells

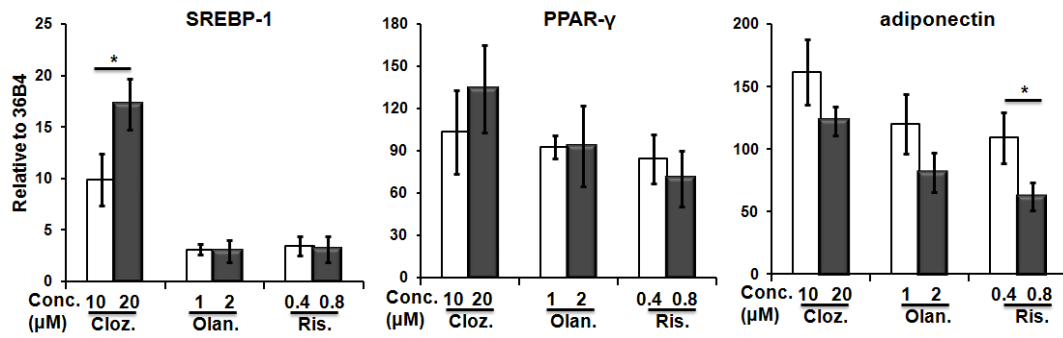
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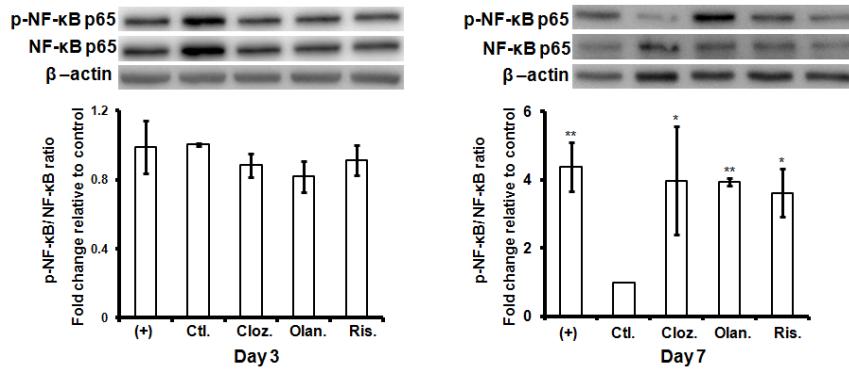
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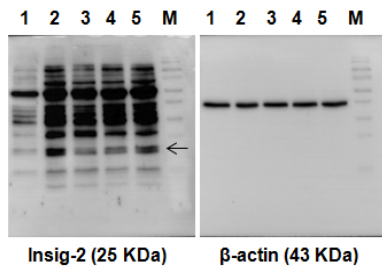


Supplementary Figure 1. Concentration responses of AAPs on lipogenic gene expressions. ASCs were differentiated in the presence of AAPs (Cloz. 10 and 20 μM; Olan. 1 and 2 μM; Ris. 0.4 and 0.8 μM). At days 7, total RNA was extracted and subjected to q-PCR. The gene expressions levels were normalized to 36B4 expression and compared to the vehicle-treated control group, respectively.

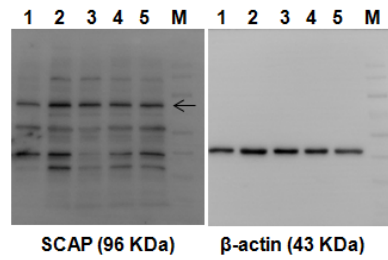


Supplementary Figure 2. Effect of AAPs on NF-κB activation during adipogenesis. The cells were treated with ADM for 2 days and supplemented with AAPs for 3 and 7 days. The cell lysates were subjected to SDS-PAGE and immunoprobed with antibodies against phospho-NF-κB and NF-κB. Each protein expression was normalized to the loading control (β-actin). Proteins expression were probed on same blot. (+): treated with ADM for the indicated times; Ctl.: treated with ADM for 2 days and changed to complete media only; Cloz.: clozapine; Olan.: olanzapine; Ris.: risperidone. Results are presented as the mean of three independent experiments ± SD.

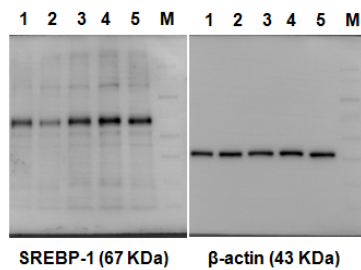
(a)



(b)



(c)



Supplementary Figure 3. Effect of AAPs on SREBP signaling during adipogenesis. The cells were treated with ADM for 2 days and supplemented with AAPs for 7 days. (a-c) The cell lysates were subjected to SDS-PAGE and immunoprobed with antibodies against Insig-2, SCAP and SREBP-1. Lane 1: (+): treated with ADM for the indicated times; Lane 2: Ctl.: treated with ADM for 2 days and changed to complete media only; Lane 3: clozapine; Lane 4: olanzapine; Lane 5: risperidone; M: marker.

Table S1. qRT-PCR primer sequences.

Gene name	Genebank accession no.	Locations of primers (5'-3')	Fragment size (bp)
<i>adiponectin</i>	NM_144744	Forward: GATACCGGGCCGTGATGG Reverse: CCCTTCCGCTCCTGTTCATTC	118
<i>ACC</i>	NM_022193	Forward: TCCCGGAGCTACTCTTAAAAAATG Reverse: CCCCAACGCCACATG	71
<i>aP2</i>	RNU75581	Forward: TCCTTCAAACCTGGGTGTGGAA Reverse: CCAGGGTTATGATGCTCTTCACT	73
<i>SREBP1</i>	XM_213329	Forward: CATCGACTACATCCGCTTCTTACA Reverse: GTCTTTCAGTGATTTGCTTTTGTGA	96
<i>SCD-1</i>	NM_139132	Forward: CAACACCATGGCGTTCCA Reverse: GCGTGTGTCTCAGAGAACTTGTG	81
<i>Insig 2</i>	NM_178091	Forward: CGCTCTTGGTTGCCATGTA Reverse: TGATGAGATTTTTGAGCAATAACTTT	107
<i>36B4</i>	NM_022402	Forward: TTCCCACTGGCTGAAAAGGT Reverse: CGCAGCCGCAAATGC-3'	60
<i>GAPDH</i>	NM_017008	Forward: TTCTAGAGACAGCCGCATCT Reverse: TGGTAACCAGGCGTCCGATA	106