

PEER-REVIEW REPORT

Name of journal: World Journal of Diabetes

Manuscript NO: 61709

Title: Decabromodiphenyl ether causes insulin resistance and glucose and lipid metabolism disorders in mice

Reviewer's code: 03833672

Position: Peer Reviewer

Academic degree: PhD

Professional title: Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2020-12-19

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-09 23:38

Reviewer performed review: 2021-04-14 19:25

Review time: 4 Days and 19 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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SPECIFIC COMMENTS TO AUTHORS

This is a well done study showing that this compound has a deleterious effect in mice on lipid and glucose metabolism. How safe are the high doses -liver, renal toxicological studies ? It appears it induces fatty liver -can you provide liver TG to confirm this How do you explain the decrease in plasma insulin-beta cell toxicity -impaired insulin secretion This explains why HOMA was not increased with the higher doses PPARS-gamma agonist like pioglitazone increase adiponectin and improve insulin sensitivity but you show the reverse of increase PPARS-g with decrease adiponectin ! There is a paradox between adiponectin protein and mRNA especially in liver -please discuss Please use Adp or Adipo to abbreviate adiponectin -ADP is a unique biochemical molecule derived from ATP