

differentiated and insulin-responsive cells.^[22] We demonstrated that TP_{aq} downregulated mRNA expression of GLUT4 and FAS which are responsible for lipid accumulation in adipocytes.

All these data suggest that Triphala could be explored as potential drug candidate in regulating obesity.

CONCLUSION

Triphala significantly decreased the adipogenesis in 3T3-L1 cells by reducing lipid accumulation and inhibiting the expression of adipogenic genes. These results confirm the antiobesity potential of Triphala.

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Conflicts of interest

There are no conflicts of interest.

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APPENDIX

Appendix 1: Chemical analysis of Triphala procured from authentic source

Chemical analysis	Specification	Test method	Result
Total tannin	Report	By titration	60.25%
Total gallic acid	Report	By HPLC	9.26%
Loss on drying	NMT 6%	USP <731>	3.95%
Herb extract ratio	5:1	In-house specification	5:1
Moisture content	NMT 4%	USP <921>	2.65%
pH	3-5	USP <791>	4.12%
Acid insoluble ash	NMT 8%	USP <281>	2.85%
Solubility in water	Soluble	Indian pharmacopoeia	Soluble
Solubility in alcohol	Partially soluble	Indian pharmacopoeia	Partially soluble
Water soluble extractive	NLT 65%	Indian pharmacopoeia	71.85%
Alcohol soluble extractive	NLT 35%	Indian pharmacopoeia	52.87%
Solvent	Water	In-house specification	Confirms
Carrier	None	In-house specification	None
Excipient	None	In-house specification	None

HPLC: High-performance liquid chromatography