

LIST OF TABLES

S.No.	Table	Page No.
2.1	Phenolic compounds characterized in <i>Vicia faba</i> L. seeds extract	14
2.2	Effect of polyphenol as protective roles and mode of action selected polyphenols and their therapeutic application	17
2.3	Selected polyphenols and their therapeutic application	18
3.1	Phytochemical composition of faba beans in different solvents	29
3.2	Major compound generated by HPLC–ESI-Q-TOF-MS (HR-LCMS) in acetone seed extract	35
4.1	Docking analysis of different ligands with porcine alpha-amylase	48
5.1	List of phenolic compounds and their molecular docking findings	66
5.2	List of system and simulations detail	67
6.1	Drug-likeness prediction of polyphenols and allopurinols	78
6.2	Different extracts of IC ₅₀ values with respect to standard (Ascorbic acid)	83
6.3	Docking analysis of different ligands with xanthine oxidase compare with allopurinol	86
6.4	List of system and simulations detail	88
7.1	The FRAP (Ferric reducing antioxidant power) assay	107
7.2	Quantitative analysis of yeast cell population subjected to oxidative stress by DAPI staining	109
7.3	Quantitative analysis of yeast cell population subjected to oxidative stress by propidium iodide staining	109

8.1	Quantitative analysis of nuclear change in 3T3-L1 cell population subjected to <i>oxidative</i> stress by propidium iodide staining	131
8.2	Quantitative analysis of nuclear change in 3T3-L1 cell population subjected to <i>oxidative</i> stress by DAPI staining	131
8.3	Analysis of cell roughness (nm) and mean cell volume (μm^3) of Control (b) extract (C) H_2O_2 and (d) extract+ H_2O_2 by atomic force microscopy.	133