

S2 Table. Surflex score of docked ligands **orlistat** (ORL) and **hesperidin** (HES) for Leptin binding domain (LBD) of leptin receptor and leptin protein complex.

Docking complex	CScore ^a	Crash score ^b	Polar score ^c	G score ^d	PMF score ^e	D score ^f	Chem score ^g	Amino acid interaction
ORL-LBD-LPT complex	8.01	-1.11	3.10	-229.548	6.622	-171.798	-5.238	Leu 568, Asn 567, Asn 566,
HES-LBD-LPT complex	10.73	-2.65	3.28	-275.233	40.536	-174.108	-21.996	Glu 565, Asn 566, Ser 507, Asn 567, Arg 615

^a**CScore** is a consensus scoring which uses multiple types of scoring functions to rank the affinity of ligands, ^b**Crash-score** revealing the inappropriate penetration into the binding site, ^c**Polar** region of the ligand, ^d**G-score** showing hydrogen bonding, complex (ligand-protein), and internal (ligand-ligand) energies, ^e**PMF-score** indicating the Helmholtz free energies of interactions for protein-ligand atom pairs (Potential of Mean Force, PMF), ^f**D-score** for chRe and van der Waals interactions between the protein and the ligand, ^g**Chem-score** points for hydrogen bonding, lipophilic contact, and rotational entropy, along with an intercept term.