Research on the effect of black soybean extract feeding on Low Density Lipoprotein (LDL) level of rat has been done. Twenty four male white Wistar rats (*Rattus norvegicus*) divided into three groups randomly, were given high fat diet to induce hypercholesterolemic condition. Hypercholesterolemic condition was gained after feeding high fat diet content for 4 weeks (a month). After a month the first group (P0) was given high fat diet and aquadest treatment, the second group (P1) was given high fat diet and black soybean extract feeding, and the third group (P2) was given standard diet and black soybean extract feeding. After three weeks of treatment, the blood was taken out from the heart and then LDL level in blood serum was measured. The result showed that high fat diet and black soybean extract feeding has decreasing LDL blood serum level of the rats significantly (p<0.05).