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## Product Datasheet

### Human Leptin protein, His and GST tag, Unconjugated GTX00170-PRO

|                            |                                                                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Article Name               | Human Leptin protein, His and GST tag, Unconjugated                                                                                                                         |
| Biozol Catalog Number      | GTX00170-PRO                                                                                                                                                                |
| Supplier Catalog Number    | GTX00170-pro                                                                                                                                                                |
| Alternative Catalog Number | GTX00170-PRO-10                                                                                                                                                             |
| Manufacturer               | GeneTex                                                                                                                                                                     |
| Category                   | Proteine/Peptide                                                                                                                                                            |
| Application                | FA                                                                                                                                                                          |
| Species Reactivity         | Human                                                                                                                                                                       |
| Conjugation                | Unconjugated                                                                                                                                                                |
| NCBI                       | <a href="#">3952</a>                                                                                                                                                        |
| UniProt                    | <a href="#">P41159</a>                                                                                                                                                      |
| Buffer                     | Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300. |
| Expression System          | E. coli                                                                                                                                                                     |
| Form                       | Lyophilized powder                                                                                                                                                          |
| Sequence                   | N-terminal His and GST-Tag, Val22~Cys167 (NP_000221.1)                                                                                                                      |

#### Application Notes

Leptin is a hormone made by adipose cells that helps to regulate energy balance by inhibiting hunger. Many of leptin's effects are mediated through neuropeptide-containing neurons and neuropeptide receptors in the hypothalamus. Although regulation of fat stores is deemed to be the primary function of leptin, it also plays a role in other physiological processes, as evidenced by its multiple sites of synthesis other than fat cells, and the multiple cell types beside hypothalamic cells that have leptin receptors. Besides, Hexokinase 3, White Cell (HK3) has been identified as an interactor of LEP, thus a binding ELISA assay was conducted to detect the interaction of recombinant human LEP and recombinant human HK3. Briefly, LEP were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to HK3-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-LEPpAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of LEP and HK3 was in a dose dependent manner.