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## Product Datasheet

### Human CXCL10 / IP10 protein, His tag (active), Unconjugated GTX00242-PRO

Article Name	Human CXCL10 / IP10 protein, His tag (active), Unconjugated
Biozol Catalog Number	GTX00242-PRO
Supplier Catalog Number	GTX00242-pro
Alternative Catalog Number	GTX00242-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Human
Conjugation	Unconjugated
NCBI	<a href="#">3627</a>
UniProt	<a href="#">P02778</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-Tag, Val22~Pro98 (NP_001556.2)

#### Application Notes

Interferon gamma-induced protein 10 (IP10) also known as C-X-C motif chemokine 10 (CXCL10) or small-inducible cytokine B10 is an 8.7 kDa protein that in humans is encoded by the CXCL10 gene. C-X-C motif chemokine 10 is a small cytokine belonging to the CXC chemokine family. IP10 secreted by several cell types in response to IFN-gamma, has been attributed to several roles, such as chemoattraction for monocytes/macrophages, T cells, NK cells, and dendritic cells, promotion of T cell adhesion to endothelial cells, antitumor activity, and inhibition of bone marrow colony formation and angiogenesis. Besides, Insulin Like Growth Factor Binding Protein 7 (IGFBP7) has been identified as an interactor of IP10, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IP10 and recombinant human IGFBP7. Briefly, VDR were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to IGFBP7-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IP10 pAb, 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 IP10 and IGFBP7 was in a dose dependent manner. Chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of IP10 on the Raji cell line. Briefly, Raji cells were seeded into the upper chambers (150 µl cell suspension,  $1 \times 10^6$  cells/ml in RPMI-1640 with FBS free) and IP10 (1 ng/ml, 10 ng/ml, 100 ng/ml and 1000 ng/ml diluted separately in serum free RPMI-1640) was added in lower chamber with a polycarbonate filter (8 µm pore size) used to separate the two compartments. After incubation at 37°C with 5% CO<sub>2</sub> for 2h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification ( $\times 100$ ) and the number of migrated cells were counted at high magnification ( $\times 400$ ) randomly. And IP10 is able to induce migration of Raji cells. The migrated Raji cells in low chamber at low magnification ( $\times 100$ ) randomly, and the migrated cells were counted at high magnification ( $\times 400$ ). The optimum chemotaxis of IP10 occurs at 10-100 ng/ml.