

294 GDF-15 Antibody

▶ Asset Overview

Product Type	GDF-15 Antibody (Therapeutic Antibody)
Indication	Oncology
Current Stage	Lead discovery/optimization
Target(MoA)	Inhibition of GDF-15
Brief Description	Growth differentiation factor 15 (GDF15), also known as macrophage inhibitory cytokine 1, can be used as prognostic marker of cancer progression. GDF15 expression is predominantly increased in tumor types with high incidence of body weight loss/cachexia.
Organization	Lead Discovery Center

▶ Differentiation

□ Target rationale

- Addressing 2 hallmarks of cancer
 - I. Deregulation of cellular energetics (Inhibition of GDF-15 to prevent cancer associated body wasting)
 - II. Immune evasion
- GDF-15 can function as clinically relevant biomarker

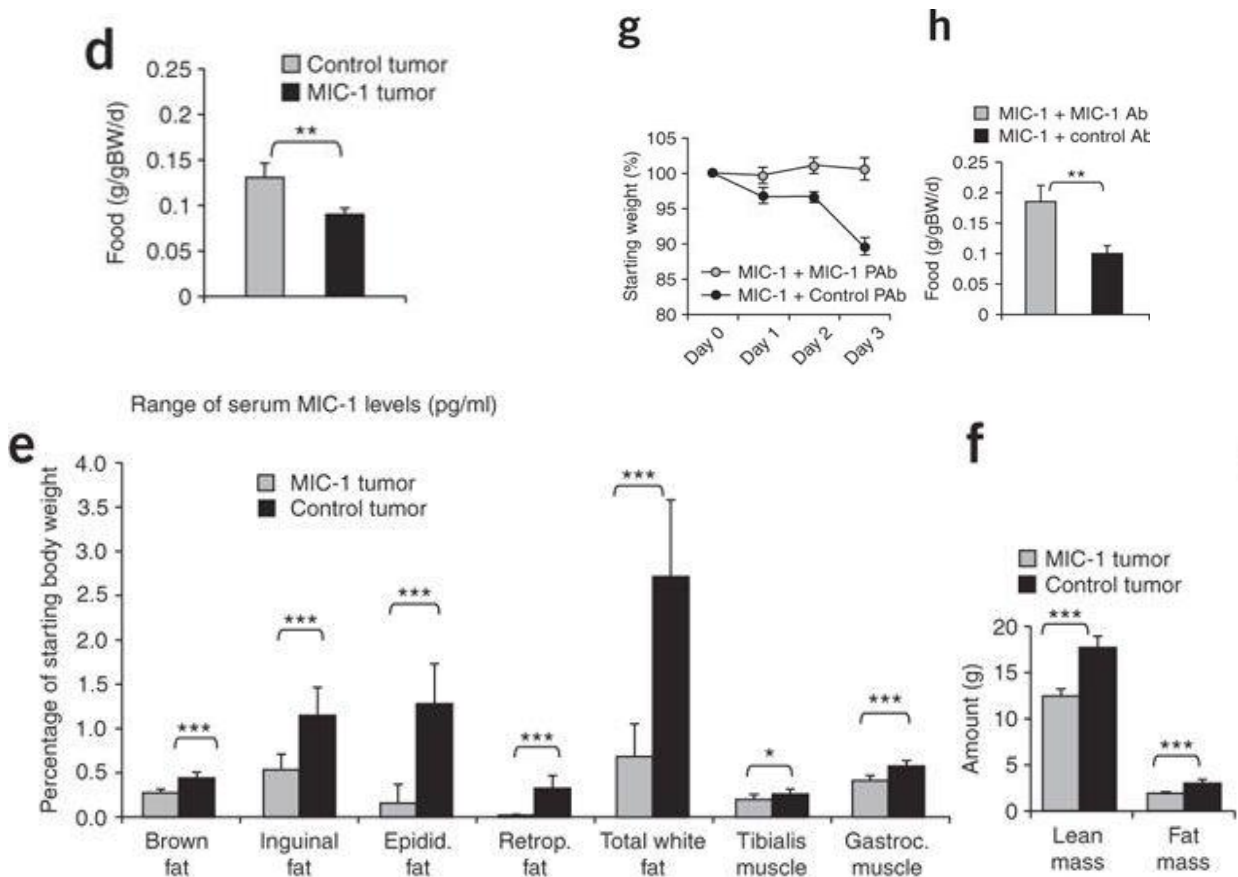
□ Key achievements

- DNA Immunization in rats & phage display resulted in 20 antibodies with high affinity
- Lead antibody selected Antibody shows excellent blocking activity on huGDF-15
- In vitro and in vivo data package available under CDA
- PK of early frontrunner compound looks promising

► Key Data

GDF-15 antagonizing antibody restores GDF-15-induced cachexia

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(d) Twenty nude mice were xenografted as in b. On day 8, when the average weight loss in the MIC-1 mice was 7%, food intake was measured for three consecutive 24-h time periods and the results expressed as the mean and s.d. (e) Twenty nude mice were engrafted as in b. They were killed when those with MIC-1 tumors had lost approximately 18% body weight. Selected fat and muscle compartments were dissected, removed and weighed. Total white fat represents the summed weight of inguinal, epididymal and retroperitoneal fat depots. The results are the mean and s.d. of the specimen weight as a percent of the weight of the mouse at the day of tumor injection. (f) Mice in e underwent DXA scanning and the results are expressed as mean and s.d. of total lean and fat mass in grams. (g) Twelve BALB/c mice were treated twice daily s.c. with 10 μ g of human MIC-1. At the start of the experiment, 50% were given a single i.p. dose of 10 mg of MIC-pAb or CON-pAb. Mice were monitored daily and their weight is expressed as a mean and s.d. percentage of their starting weight. (h) The mean and s.d. of daily food intake of the mice in g was monitored for three consecutive 24-h time periods. *P < 0.05, **P < 0.01, ***P < 0.001.

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► Intellectual Property

Patent No.	
Application Date	
Status	
Country	

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