



## Polyclonal Antibody against Mouse FGF-21

Catalog Number: 12180

Size: 100 µg

Host: Rabbit

### Introduction to the Molecule

Fibroblast growth factor 21 (FGF-21) is a novel protein that has been implicated in the regulation of lipid and glucose metabolism under fasting and ketotic conditions<sup>1,2</sup>. In murine models, FGF-21 is predominantly expressed in liver, but is also expressed in adipose tissue and pancreatic  $\beta$ -cells<sup>3,4</sup>. FGF-21 stimulates glucose uptake in adipocytes. It also protects animals from diet-induced obesity when overexpressed in transgenic mice, and lowers blood glucose and triglyceride levels when administered to diabetic rodents<sup>5</sup>. When administered daily for 6 weeks to diabetic rhesus monkeys, FGF-21 caused a dramatic decline in fasting plasma glucose, fructosamine, triglycerides, insulin and glucagon<sup>6</sup>. Furthermore, elevated plasma FGF-21 concentrations in humans appear to be related to the presence of hepatic and peripheral insulin resistance<sup>7</sup>.

### Purification

Antigen affinity-purified

### Immunogen

Recombinant full-length mouse FGF-21 expressed in *E.coli*.

### Specificity

The antibody detects circular mouse FGF-21 in western blot and ELISA.

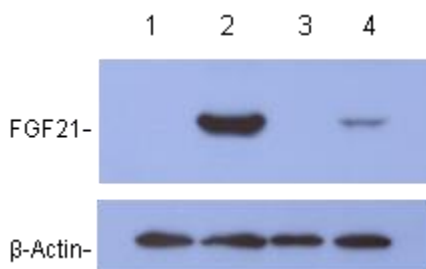
### Formulation & Storage

Liquid in phosphate-buffered saline (PBS). Store at  $-20^{\circ}\text{C}$  for less than one week. For long-term storage, aliquot and freeze at  $-70^{\circ}\text{C}$ . Avoid repeated freeze/thaw cycles.

### Application/Usage

**ELISA** - This antibody can be used at 2 µg/mL with the appropriate secondary reagents to detect mouse FGF-21.

**Western blot** - This antibody can be used at 0.2-0.5 µg/mL with the appropriate secondary reagents to detect mouse FGF-21.



Western blot analysis of FGF21 in 10ug non FGF21 expressing cell lysate (Lane 1,3) and FGF21 expressing cell lysate (Lane 2,4) using anti-FGF21 followed by goat anti-rabbit antibody. (The figure is from Prof. Cheah's lab, HKU.)

### Quality Control Test

BCA to determine quantity of the antibody.



## References

- [1] Kharitonov A, Shiyanova TL, et al. (2005) J Clin Invest; 115: 1627- 1635
- [2] Badman MK, Pissios P, et al. (2007) Cell Metab; 5: 426- 437
- [3] Nishimura T, Nakatake Y, et al. (2000) Biochim Biophys Acta; 1492: 203- 206
- [4] Kurosu H, Choi M, et al. (2007) J Biol Chem; 282: 26687- 26695
- [5] Kharitonov A, Shiyanova TL, et al. (2005) J. Clin. Invest. 115: 1627-35
- [6] Kharitonov A, Wroblewski VJ, et al. (2007) Endocrinology;148:774-81
- [7] Chavez AO, Molina-Carrion M, et al. (2009) Diabetes Care; 32:1542-6