

Nesfatin-1 Human, Sheep Polyclonal Antibody

Product Data Sheet

Source of Antigen: E. coli

Cat. No.:

Host: Sheep

RD184227100

(0.1 mg)

Other names: Nucleobindin-2, DNA-binding protein NEFA, Gastric cancer antigen Zg4, NUCB2, NEFA

Research topic

Energy metabolism and body weight regulation, Neural tissue markers

Preparation

The antibody was raised in sheep by immunization with the recombinant Human Nesfatin-1.

Amino Acid Sequence

The immunization antigen (10.79 kDa) is a protein containing 92 AA of recombinant Human Nesfatin-1. N-Terminal His-tag, 10 extra AA (highlighted).

MKHHHHHHAS VPIDIDKTKV QNIHPVESAK IEPDPTGLYY DEYLKQVIDV LETDKHFREK LQKADIEEIK SGRLSKELDL
VSHHVRTKLD EL

Species Reactivity

Human

Not yet tested in other species.

Purification Method

Immunoaffinity chromatography on a column with immobilized recombinant Human Nesfatin-1.

Antibody Content

0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. AZIDE FREE.

Reconstitution

Add 0.2 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration

See vial label.

Lot Number

See vial label.

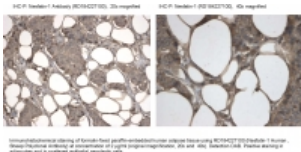
Quality Control Test

Indirect ELISA - to determine titer of the antibody

Applications

ELISA, Immunohistochemistry, Western blotting

Antibodies application



Introduction to the Molecule

Nesfatin-1 was first described in 2006 as a neurohormone derived from the protein NEFA/nucleobindin2 (NUCB2). It is a polypeptide consisting of 82 amino acids, with high level of homology in human, mouse and rat. Nesfatin-1 has been localized in the brain, particularly in the nuclei of the hypothalamus, in the adipose tissue and the gastrointestinal tract, but also in serum and cerebrospinal fluid. Nesfatin-1 was identified as a satiety molecule affecting fat metabolism. Intracerebroventricular administration of nesfatin-1 induces decreases in food intake and body weight and increases in sympathetic nerve activity and mean arterial pressure. Effect of Nesfatin-1 is leptin - independent, it is probably mediated by melanocortin system. Several studies are currently focused on the possibility of using Nesfatin-1 in the treatment of obesity, even in individuals with leptin resistance. Due to the presence in serum Nesfatin-1 could also serve as a clinical marker in the diagnosis of many diseases. The important role of nesfatin-1 in metabolism of glucose and insulin has been reported in several studies. Different concentrations were observed in patients with diabetes mellitus type I. and II. In individuals with DM type II. postprandial concentration of nesfatin-1 was significantly lower than that of DM type I. and healthy subjects. Different levels of Nesfatin-1 was measured in patients with anorexia nervosa and panic disorders in comparison with a control healthy group. Data obtained in experiments with rat models indicate that nesfatin-1 acts as a peripheral modulator of the cardiac function. Much higher levels of serum Nesfatin-1 (up to 160x) were detected in patients with primarily diagnosed epilepsy. During the treatment with anti-epileptics concentration of Nesfatin-1 decreased, but it was still about 10 times higher than the level of the hormone in healthy individuals. It offers the idea that it would be possible to use the Nesfatin-1 as a marker for diagnosis and monitoring of epilepsy.

Note

This product is for research use only.

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