

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects rat Nesfatin-1/Nucleobindin-2 in direct ELISAs and mouse and rat Nesfatin-1/Nucleobindin-2 in Western blots. In direct ELISAs, approximately 7% cross-reactivity with recombinant human Nesfatin-1/Nucleobindin-2 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant rat Nesfatin-1/Nucleobindin-2 Pro26-Leu106 Accession # Q9JI85
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Nesfatin-1 (NEFA Encoded Satiety and Fat-influencing protein 1) is a presumably secreted peptide derived from the translation product of the NUCB2 gene. Nesfatin-1 is associated with neurons involved in feeding (ARH and PVH), fluid intake (SON and PVH) and autonomic activity, in β -cells of the pancreas, endocrine cells in the stomach, and in adipocytes. Its presence peripherally has an anorexigenic effect. Mature rat Nesfatin-1 is 82 amino acids (aa) in length. Although it is 10 kDa in MW, its presence in SDS-PAGE is difficult to detect in biological fluids. It represents the N-terminal cleavage product of a 420 aa precursor termed NEFA/Nucleobindin-2/NUCB2. NUCB2 contains a signal sequence (aa 1-24), Nesfatin-1 (aa 25-106), a DNA-binding site (aa 171-223), and two EF-hand regions (aa 241-276 and 293-328). Full-length NUCB2 is 48-55 kDa in size, and may be present extracellularly. There is a potential for multiple cleavages that would generate Nesfatin-1, Nesfatin-2 (aa 109-187) and Nesfatin-3 (aa 190-420). A 25 kDa peptide that represents Nesfatin-1 and -2 has been reported. Rat Nesfatin-1 (aa 25-106) shares 97% and 84% aa identity with mouse and human Nesfatin-1, respectively.

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