

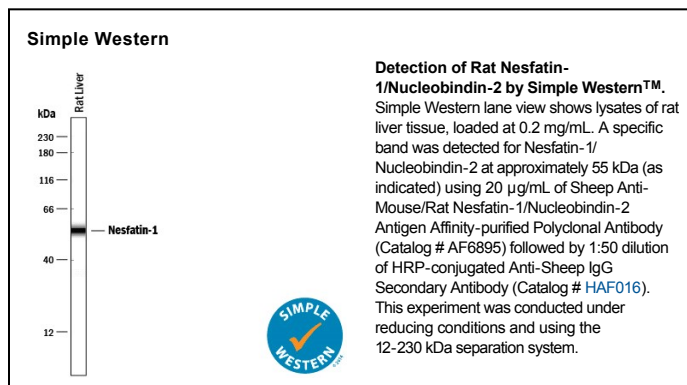
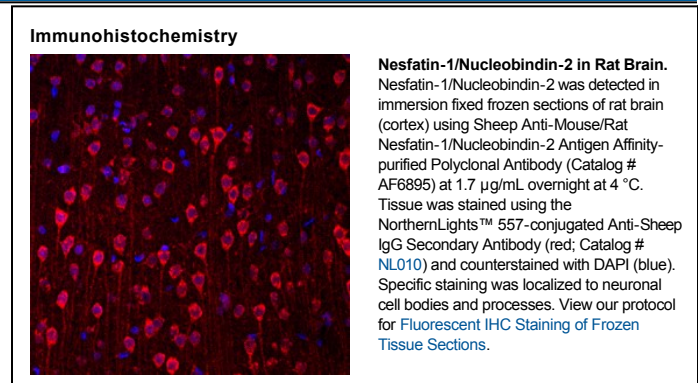
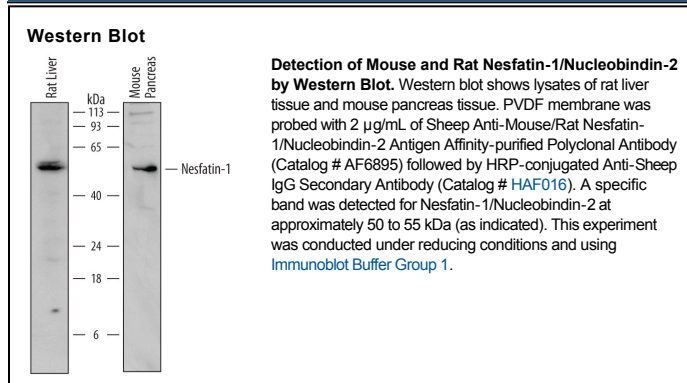
DESCRIPTION	
Species Reactivity	Mouse/Rat
Specificity	Detects rat Nesfatin-1/Nucleobindin-2 in direct ELISAs and mouse and rat Nesfatin-1/Nucleobindin-2 in Western blots. In direct ELISAs, approximately 7% cross-reactivity with recombinant human Nesfatin-1/Nucleobindin-2 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant rat Nesfatin-1/Nucleobindin-2 Pro26-Leu106 Accession # Q9J185
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	20 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.