Datasheet

Cat. No. P1620

# Recombinant Human Nesfatin-1

## Information

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|---|---|
| Gene ID | 4925 |
| Accession # | P80303 |
| Alternate Names | Nucleobindin 2 |
| Source | Escherichia coli. |
| M.Wt | Approximately 9.6 kDa, a single non-glycosylated polypeptide chain containing 82 amino acids. |
| AA Sequence | VPIDIDKTKV QNIHPVESAK IEPPDTGLYY DEYLKQVIDV LETDKHFREK LQKADIEEIK SGRLSKELDL VSHHVRTKLD EL |
| Appearance | Sterile Filtered White lyophilized (freeze-dried) powder. |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles<br>- 12 months from date of receipt, -20 to -70 °C as supplied<br>- 1 month, 2 to 8 °C under sterile conditions after reconstitution<br>- 3 months, -20 to -70 °C under sterile conditions after reconstitution |
| Formulation | Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4. |
| Reconstitution | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions. |
| Biological Activity | Fully biologically active when compared to standard. The biological activity is tested by in vivo assay using healthy wild type male mice (C57BL/6J). |
| Shipping Condition | Gel pack. |
| Handling | Centrifuge the vial prior to opening. |
| Usage | For Research Use Only! Not to be used in humans. |

## Components and Storage

| Components | 100μg | 500μg |
|---|---|---|
| Recombinant Human Nesfatin-1 | 100μg | 500μg |
| Use a manual defrost freezer and avoid repeated freeze-thaw cycles<br>- 12 months from date of receipt, -20 to -70 °C as supplied | | |

- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

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|---|---|
| Purity | > 95 % by SDS-PAGE and HPLC analyses. |
| Endotoxin | Less than 1 EU/μg of rHuNesfatin-1 as determined by LAL method. |

## Description

Nesfatin is a metabolic polypeptide and is the N-terminal region of the precursor protein, Nucleobindin2 (encoded by NUCB2 gene). It is a naturally occurring protein and originally identified as a hypothalamic neuropeptide. Additionally, Nesfatin can be found in other areas of brain, and in pancreatic islets β -cells, gastric endocrine cells and adipocytes. It is responsible for regulating appetite and production of body fat. Excess nesfatin-1 in the brain leads to a loss of appetite, less frequent hunger, a 'sense of fullness', and a drop in body fat and weight. A lack of nesfatin-1 in the brain leads to an increase of appetite, more frequent episodes of hunger, an increase of body fat and weight, and the inability to 'feel full'.

## Reference


1. Yang M, Zhang Z, Wang C, et al. 2012. Diabetes, 61: 1959-68
2. Xia ZF, Fritze DM, Li JY, et al. 2012. Am J Physiol Gastrointest Liver Physiol, 303: G570-7
3. Cowley MAandGrove KL. 2006. Cell Metab, 4: 421-2
4. Pan W, Hsuchou H, Kastin AJ. 2007. Peptides, 28: 2223-8.



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