

Nesfatin 1 (NES1) Active Protein | NES1 active protein

Active Nesfatin 1 (NES1)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA148169	E Coli	Mouse	Activity Assay, Cell Culture

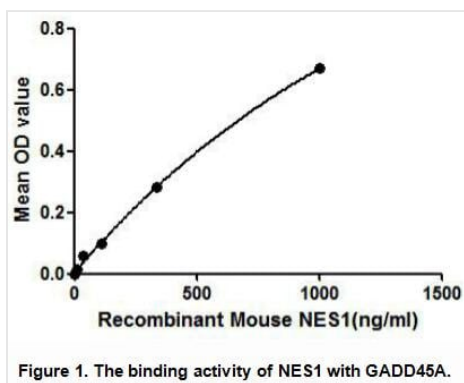
PRODUCT SYNONYMS

Nesfatin 1 (NES1); Active Nesfatin 1 (NES1); NES1 active protein

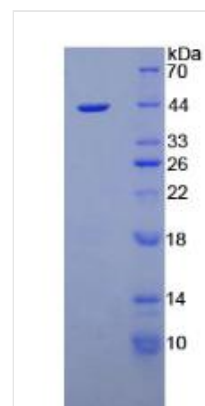
PRODUCT SPECIFICATIONS

Host	E Coli
Reactivity	Mouse
Purity/Purification	> 97%
Form/Format	Freeze-dried powder
Sequence Length	420
Applicable Applications for NES1 active protein	Activity Assay, Cell Culture
Tag	N-terminal His and GST Tag
Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Fragment	Pro26~Leu106
Isoelectric Point	5.8

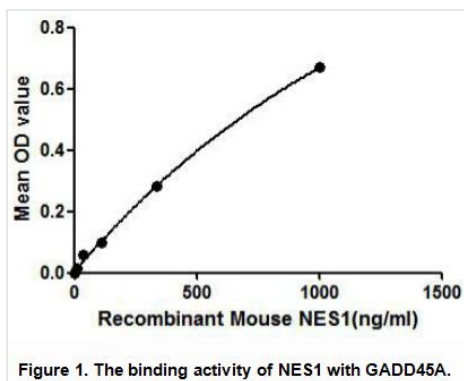
IMAGES



Application Data



SDS-PAGE



Activity

Nucb2 (Nucleobindin-2), a calcium-binding protein, is further cleaved into NES1 (Nesfatin-1). NES1 is an anorexigenic peptide and seems to participate in hypothalamic pathways regulating food intake and energy homeostasis, acting in a leptin-independent manner. GADD45A (Growth arrest and DNA damage-inducible protein GADD45 alpha) has been identified as an interactor of Nucb2. Besides, rat GADD45A shares similarities with mouse NES1 in amino acid sequence with the identity of 98%. Thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse NES1 and recombinant rat GADD45A. Briefly, NES1 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL NES1 were then transferred to GADD45A-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-NES1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of NES1 and GADD45A was shown in Figure 1, and this effect was in a dose dependent manner.

NCBI AND UNIPROT INFORMATION

NCBI GI #	11072106
NCBI GeneID	59295
NCBI Accession #	NP_067695.1
NCBI GenBank Nucleotide #	NM_021663.2
UniProt Accession #	Q9JI85
Molecular Weight	Predicted Molecular Weight: 39.5kDa Accurate Molecular Weight: 39kDa
NCBI Official Full Name	nucleobindin-2
NCBI Official Synonym Full Names	nucleobindin 2
NCBI Official Symbol	Nucb2
NCBI Official Synonym Symbols	p54; Nefa
NCBI Protein Information	nucleobindin-2
UniProt Protein Name	Nucleobindin-2
UniProt Gene Name	Nucb2
UniProt Synonym Gene Names	Nefa

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.