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## Product Datasheet

### Mouse NUCB2 protein, His and GST tag, Unconjugated GTX00074-PRO

Article Name	Mouse NUCB2 protein, His and GST tag, Unconjugated
Biozol Catalog Number	GTX00074-PRO
Supplier Catalog Number	GTX00074-pro
Alternative Catalog Number	GTX00074-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Mouse
Conjugation	Unconjugated
NCBI	<a href="#">53322</a>
UniProt	<a href="#">P81117</a>
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His and GST-Tag, Pro26~Leu106 (NP_001123951.1)

#### Application Notes

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 100 µl NES1 were then transferred to GADD45A-coated microtiter wells and incubated for 2h at 37C. 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 37C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of NES1 and GADD45A was in a dose dependent manner.