

## Anti-Nucleobindin 2 / NEFA / Nesfatin precursor antibody, rabbit polyclonal (NET1)

73-109      100 µg

**Shipping and Storage:** Ship at 4°C or -20°C and store at -20°C.

**Immunogen:** Recombinant GST-fused mouse nucleobindin 2 (aa 26-420)

**Form:** Protein A-affinity purified IgG. 1 mg/ml in PBS- with 50% glycerol. Filter-sterilized. No additive.

**Reactivity:** Reacts with mouse rat and human nucleobindin 2. (Specificity validated in Ref )

### Applications:

1. Western blotting (1/1,000-1/3,000).
2. Immuno-precipitation. (1/200)
3. Immuno-cytochemistry (1/300-1/1,000)
4. Immuno-histochemistry (1/300-1/1,000)
5. Immuno-electron microscopy (assay dependent)
6. Immuno-affinity chromatography (assay dependent)

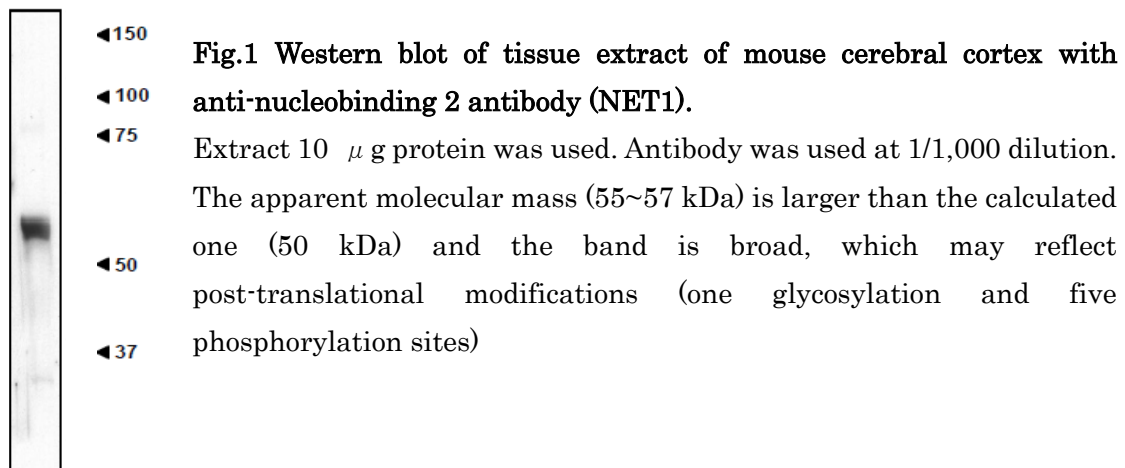
**Background:** **Nucleobindin 2 (NUCB2)**, also known as **NEFA** or **Nesfatin precursor**, is a ubiquitously expressed EF-hand Ca<sup>2+</sup> binding protein that is implicated in various physiological processes. **Nucleobindin 2** interacts with the postmitotic growth suppressor neclin in neurons. Both neclin and **nucleobindin 2** are expressed in differentiated neurons and skeletal muscles and these proteins are likely to be involved in the regulation of survival and death of postmitotic cells by controlling Ca<sup>2+</sup> homeostasis

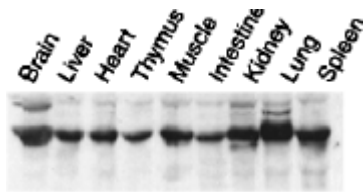
**Data Link:** Swiss-Prot [P81117](#) (mouse), [Q9JI85](#) (rat), [P80303](#) (human)

**Reference:** This antibody was described and used in the following publication.

Taniguchi N *et al* (2000) "The postmitotic growth suppressor neclin interacts with a calcium-binding protein (NEFA) in neuronal cytoplasm." *J Biol Chem* **275**: 31674-31681 PMID: [10915798](#) **WB, IP, IF,**

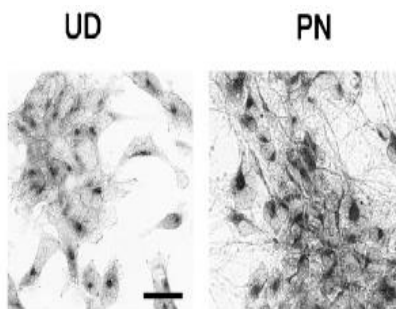
**IHC, Immuno-affinity chromatography**





**Fig.2 Expression of Nucleobindin-2 in various tissues as examined by western blotting.**

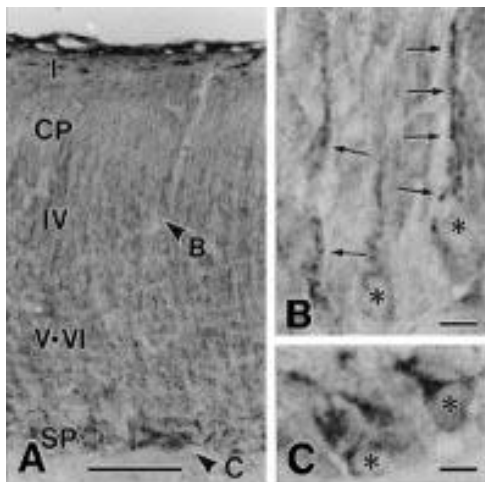
Distribution of nucleobindin 2 in neonatal mouse organs. Homogenates of various organs from P0 mouse were separated by 10% SDS-PAGE and immunoblotted with this antibody. The antibody was used at 1/1,000 dilution.



**Fig.3. Immunocytochemistry for endogenous nucleobindin 2**

Cells were stained with this antibody by the avidin-biotin-peroxidase complex method.

Left panel; undifferentiated murine embryonal carcinoma P19 cells (UD). Right panels, enriched post-mitotic neurons (PN). Nucleobindin 2 was localized to the cytoplasm near the nucleus in undifferentiated P19 cells, and its immunoreactivity in the cytoplasm was increased when P19 cells were induced to differentiate into neurons.



**Fig.4 Immunohistochemistry for nucleobindin 2 in neonatal mouse brain with this antibody**

Frozen brain sections from neonatal mouse were stained with this antibody by the avidin-biotin peroxidase complex method. A-C, cerebral cortex (parietal lobe). At higher magnification (B, C), fine granular immunoreactive materials are observed at both neuronal dendrites (arrows) and perikarya (asterisks) in the layer IV (arrowhead B in A) and subplate (arrowhead C in A) of the cerebral cortex. Scale bars, 100  $\mu$ m (A) and 10 $\mu$ m (B and C).