

## Product datasheet for **AP55103SU-N**

### Neurochondrin (NCDN) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	<b>ELISA.</b> <b>Western Blot.</b> <b>Immunohistochemistry.</b>
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptides derived from N-terminal part of the Human Norbin protein.
Specificity:	This antibody reacts with Human 79 kDa protein.
Formulation:	State: Serum State: Lyophilized serum Preservative: None
Reconstitution Method:	Restore in distilled water.
Conjugation:	Unconjugated
Storage:	Prior to reconstitution store the antibody at -20°C. Store the reconstituted antibody at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	neurochondrin
Database Link:	<a href="#">Entrez Gene 23154 Human</a> <a href="#">Q9UBB6</a>



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**Background:**

Norbin, also known as Neurochondrin, is a neuron-specific cytoplasmic protein involved in dendrite outgrowth. Overexpression of norbin in cultured Neuro 2a cells induced neurite-outgrowth. Norbin is located at rat chromosome 5q36. In addition to its involvement in dendrite outgrowth, Norbin is implicated in neural plasticity, chondrocyte differentiation, and early embryogenesis and in bone metabolism by inducing bone marrow cells to absorb bone matrix. Norbin is also an important endogenous modulator of metabotropic glutamate receptor 5 (mGluR5). It increases the cell surface localization of the receptor and positively regulates its signaling by physically interacting with the receptor. Norbin also acts as a signal molecule. It is a negative regulator of  $\text{Ca}^{2+}$ /Calmodulin-dependent protein kinase II (CaMKII) phosphorylation and it is essential for the spatial learning process of the neurons. Recently it was shown that Norbin is a Diaphanous1 (Dia1) interacting protein, specifically binding to only the formin homology 3 (FH3). Furthermore, it was uncovered that the first 100 amino acids, but not the C-terminal region, of Norbin were responsible for its effect on neurite outgrowth. Norbin knockout mice showed a behavioral phenotype associated with a rodent model of schizophrenia and disruption of norbin gene resulted in epileptic seizure. Targeted disruption of Norbin gene resulted in embryonic lethality. It is also suggested that Norbin is involved in age and sex dependent brain function. Norbin is expressed in hippocampus, amygdala, septum, nucleus accumbens and dorsal striatum. It is approximately an 87.5kDa protein (729 amino acids).

**Synonyms:**

NCDN, KIAA0607