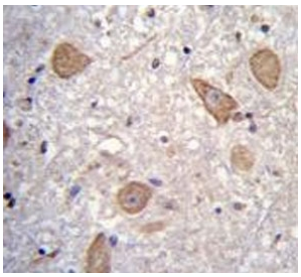
# CNIH2 Antibody / Cornichon Homolog 2 (F54600)

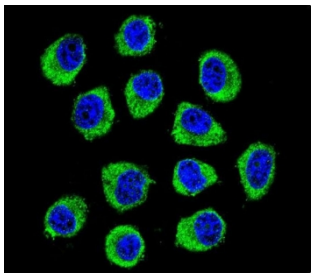
| Catalog No. | Formulation | Size |
|---|---|---|
| F54600-0.4ML | In 1X PBS, pH 7.4, with 0.09% sodium azide | 0.4 ml |
| F54600-0.08ML | In 1X PBS, pH 7.4, with 0.09% sodium azide | 0.08 ml |

**Bulk quote request**

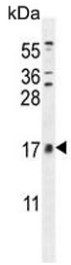
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit Ig |
| **Purity** | Antigen affinity purified |
| **UniProt** | Q6PI25 |
| **Localization** | Cytoplasmic |
| **Applications** | Western blot: 1:500-1:2000<br>Immunohistochemistry (FFPE): 1:25<br>Flow cytometry: 1:25 per million cells<br>Immunofluorescence: 1:25 |
| **Limitations** | This CNIH2 antibody is available for research use only. |



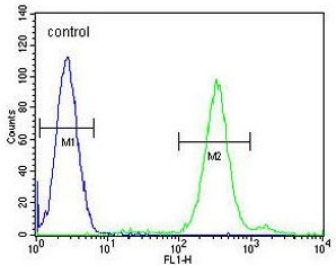
CNIH2 Antibody Human Brain IHC. Immunohistochemistry testing of FFPE human brain tissue with CNIH2 antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



CNIH2 Antibody IF. Immunofluorescent staining of human U-251 MG cells with CNIH2 antibody (green) and DAPI nuclear stain (blue).




CNIH2 Antibody WB. Western blot testing of human HL60 cell lysate with CNIH2 antibody. Predicted molecular weight ~19 kDa.




CNIH2 Antibody FACS. Flow cytometry testing of human HL60 cells with CNIH2 antibody; Blue=isotype control, Green= CNIH2 antibody.

## Description

Cornichon homolog 2 (CNIH2) is a small transmembrane protein that functions as an auxiliary subunit of AMPA-type glutamate receptors and plays a critical role in regulating excitatory synaptic transmission in the central nervous system. Cornichon homolog 2 (CNIH2) is widely expressed in neuronal tissues, where it modulates AMPA receptor trafficking, gating kinetics, and surface expression. CNIH2 Antibody is useful for detecting this synaptic regulatory protein in studies focused on neuronal signaling, synaptic plasticity, and glutamatergic neurotransmission. CNIH2 is enriched in the brain, particularly in regions associated with learning and memory such as the hippocampus and cortex, where AMPA receptor activity is essential for fast excitatory signaling.

CNIH2 antibody, also referred to as Cornichon homolog 2 antibody, recognizes a membrane-associated protein that belongs to the cornichon family of evolutionarily conserved cargo proteins. These proteins were originally identified in Drosophila as regulators of protein trafficking and secretion, and their mammalian homologs have been adapted for specialized roles in synaptic receptor modulation. CNIH2 is localized to the endoplasmic reticulum and plasma membrane, where it associates directly with AMPA receptor subunits and facilitates their export, stabilization, and functional modulation at the synapse. Through these interactions, CNIH2 enhances receptor conductance and alters desensitization kinetics, thereby influencing synaptic strength and neuronal communication.

CNIH2 functions as part of a multiprotein complex that includes AMPA receptor subunits such as GluA1 and GluA2, as well as other auxiliary proteins including TARPs (transmembrane AMPA receptor regulatory proteins). These complexes coordinate the trafficking of AMPA receptors from the endoplasmic reticulum to the synaptic membrane and regulate receptor localization at postsynaptic densities. CNIH2 has been shown to increase the surface expression of AMPA receptors and prolong channel open time, contributing to enhanced excitatory synaptic transmission. Its role in shaping synaptic responses makes it an important factor in processes such as long-term potentiation and synaptic plasticity.

Altered CNIH2 expression or function has been implicated in neurological and neuropsychiatric conditions involving dysregulated glutamatergic signaling. Changes in AMPA receptor trafficking and function are associated with disorders

such as epilepsy, schizophrenia, and neurodegenerative diseases, highlighting the importance of auxiliary subunits like CNIH2 in maintaining synaptic balance. In addition, CNIH2 may contribute to activity-dependent remodeling of synapses, further linking it to adaptive and pathological changes in neuronal networks.

Given its central role in AMPA receptor regulation and synaptic function, CNIH2 represents an important target for studying excitatory neurotransmission and neuronal plasticity. A CNIH2 antibody can be used to investigate protein expression and localization in neural tissues and experimental models, supporting research into synaptic biology, receptor trafficking mechanisms, and neurological disease processes.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

## Application Notes

The stated application concentrations are suggested starting points. Titration of the CNIH2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

A portion of amino acids 31-59 from the human protein was used as the immunogen for the CNIH2 antibody.

## Storage

Aliquot the CNIH2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

## Alternate Names

CNIH2 antibody, Cornichon homolog 2 antibody, Cornichon family AMPA receptor auxiliary protein 2 antibody, CNIH2 AMPA receptor antibody


Copyright © NSJ Bioreagents. All rights reserved.