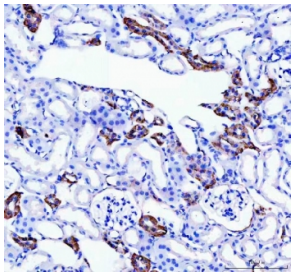
Calbindin Antibody / CALB1 (R31476)

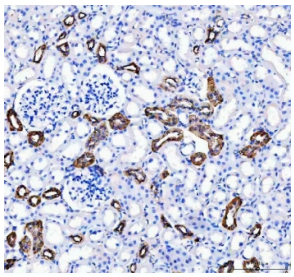
Catalog No.	Formulation	Size
R31476	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

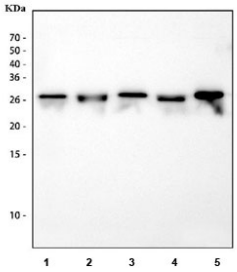
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P05937
Localization	Cytoplasmic, nuclear, secreted
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunoprecipitation : 2ug per 500ug of lysate
Limitations	This Calbindin antibody is available for research use only.



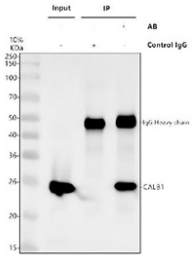
IHC staining of FFPE mouse kidney tissue with Calbindin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



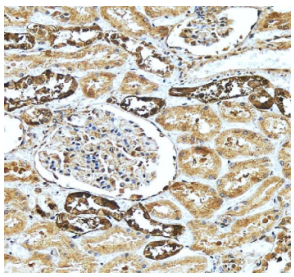
IHC staining of FFPE rat kidney tissue with Calbindin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



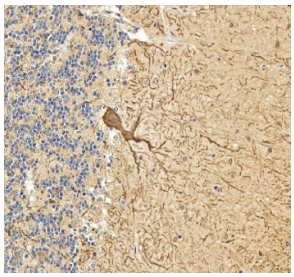
Western blot testing of 1) human K562, 2) rat kidney, 3) rat brain, 4) mouse kidney and 5) mouse brain tissue lysate with Calbindin antibody. Expected molecular weight: 24-30 kDa (two isoforms).



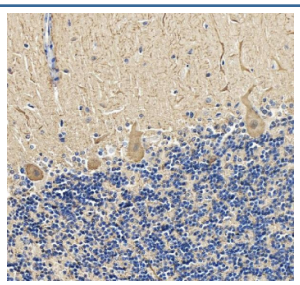
Immunoprecipitation of Calbindin protein from 500ug of human K562 whole cell lysate with 2ug of Calbindin antibody.



IHC staining of FFPE human kidney tissue with Calbindin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human cerebellum tissue with Calbindin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human cerebellum tissue with Calbindin antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Calbindin, also known as CALB1, is a calcium-binding protein that plays a central role in buffering intracellular calcium levels and modulating calcium signaling pathways. It is a member of the calmodulin superfamily and is highly expressed in specific neuronal populations, including Purkinje cells of the cerebellum, hippocampal neurons, and certain sensory neurons. Calbindin is also found in tissues outside the nervous system, such as the kidneys and pancreas, where it helps regulate calcium transport and absorption.

The Calbindin protein exists in multiple isoforms resulting from alternative splicing, with differential expression across tissue types and developmental stages. These isoforms may influence the protein's calcium-binding affinity and interaction with target molecules. Alterations in Calbindin expression have been associated with neurodegenerative diseases such as Alzheimer's and Parkinson's, as well as with cancer and metabolic disorders.

A well-characterized Calbindin antibody is essential for detecting CALB1 protein expression in research studies focused on calcium signaling, neuronal development, and disease pathology. The Calbindin antibody can be used in applications such as immunohistochemistry, western blot, and immunofluorescence to map protein distribution and quantify expression levels. NSJ Bioreagents offers a Calbindin antibody that has been validated for performance across these applications, supporting high sensitivity and specificity for a range of research needs.

Application Notes

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

Immunogen

Human partial recombinant protein (AA 2-175) was used as the immunogen for this Calbindin antibody.

Storage

After reconstitution, the Calbindin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.