

# PRODUCT INFORMATION



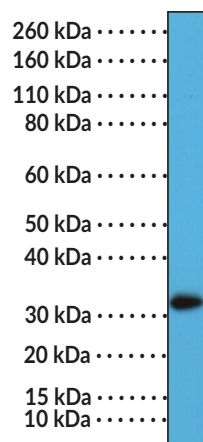
## Calretinin (N-Term) Rabbit Monoclonal Antibody (Clone RM324)

Item No. 32262

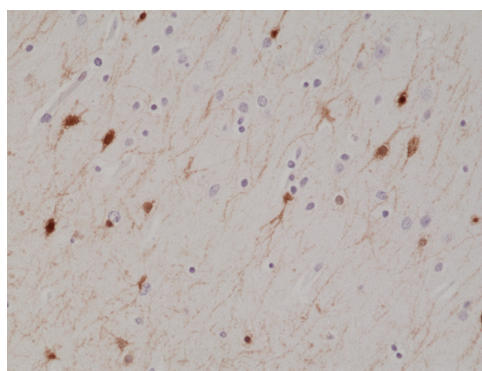
### Overview and Properties

<b>Contents:</b>	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
<b>Synonyms:</b>	29 kDa Calbindin, CAB29, CAL2, Calbindin 2
<b>Immunogen:</b>	Peptide from the N-terminal region of human calretinin
<b>Cross Reactivity:</b>	(+) Calretinin
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
<b>Clone:</b>	RM324
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:2,000-1:4,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



WB of A431 cell lysate using Calretinin (N-Term) Rabbit Monoclonal Antibody (Clone RM324) at a dilution of 1:2,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human brain tissue using Calretinin (N-Term) Rabbit Monoclonal Antibody (Clone RM324) at a 1:1,000 dilution.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Calretinin is a calcium-binding protein and member of the large EF-hand protein family that is encoded by *CALB2* in humans.<sup>1</sup> It is composed of six EF-hand domains, each of which contains two  $\alpha$ -helices oriented perpendicular to each other around a calcium-binding domain. Calretinin is expressed in specific neuronal populations, including granule cells of the cerebellum, auditory neurons, and retinal neurons, and is localized to the cytosol where it has a role in the modulation of neuronal excitability. It is also expressed under pathological conditions, particularly in epithelial mesothelioma cells and colon adenocarcinomas. *Calb2*<sup>-/-</sup> mice exhibit impaired induction of long-term potentiation following tetanic hippocampal stimulation. Levels of calretinin are increased in the dorsomedial and ventromedial hypothalamic nuclei in aged rats.<sup>2</sup> Cayman's Calretinin (N-Term) Rabbit Monoclonal Antibody (Clone RM324) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

## References

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1. Camp, A.J. and Wijesinghe, R. Calretinin: Modulator of neuronal excitability. *Int. J. Biochem. Cell Biol.* **41(11)**, 2118-2121 (2009).
2. Vishnyakova, P.A., Moiseev, K.Y., Spirichev, A.A., *et al.* Expression of calbindin and calretinin in the dorsomedial and ventromedial hypothalamic nuclei during aging. *Anat. Rec. (Hoboken)* (2020).

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