**BACKGROUND**

The family of EF-hand type Ca\(^{2+}\)-binding proteins includes Calbindin D28K, Calbindin D9K, S-100\(\alpha\) and \(\beta\), Calgranulin A (also designated MRP8), Calgranulin B (also designated MRP14), Calgranulin C and the parvalbumin family members, including parvalbumin \(\alpha\) and parvalbumin \(\beta\) (also designated oncomodulin). Calbindin D28K, also known as calbindin, CALB1, D-28K or vitamin D-dependent calcium-binding protein, is a 261 amino acid protein with 6 EF-hand domains, 4 of which are active calcium-binding domains. Expressed in brain, ovary, uterus, testis, pancreas, liver, kidney and intestine, Calbindin D28K acts as a calcium-buffering agent and alters the activity of the plasma membrane ATPase. In neuronal cells, Calbindin D28K modulates calcium channel activity, calcium transients and intrinsic neuronal firing activity. Also, Calbindin D28K has been implicated to play a role in apoptosis and microtubule function.

**CHROMOSOMAL LOCATION**

Genetic locus: CALB1 (human) mapping to 8q21.3; Calb1 (mouse) mapping to 4A2.

**SOURCE**

Calbindin D28K (H-50) is a rabbit polyclonal antibody raised against amino acids 35-84 mapping near the N-terminus of Calbindin D28K of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Calbindin D28K (H-50) is recommended for detection of Calbindin D28K of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Calbindin D28K (H-50) is also recommended for detection of Calbindin D28K in additional species, including equine, bovine and porcine.


Molecular Weight of Calbindin D28K: 28 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat small intestine extract: sc-364811.

**RECOMMENDED SECONDARY REAGENTS**


**DATA**

![Calbindin D28K (H-50): sc-28285. Western blot analysis of Calbindin D28K expression in rat small intestine tissue extract.](image1)

![Calbindin D28K (H-50): sc-28285. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.](image2)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**Try Calbindin D28K (D-4): sc-365360 or Calbindin D28K (AF2E5): sc-135666, our highly recommended monoclonal alternatives to Calbindin D28K (H-50). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see Calbindin D28K (D-4): sc-365360.**