SANTA CRUZ BIOTECHNOLOGY, INC.

Calbindin D28K (AF2E5): sc-135666

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The Power to Question

BACKGROUND

The family of EF-hand type Ca^{2+}-binding proteins includes Calbindin D28K, Calbindin D9K, S-100 α and β, Calgranulin A (also designated MRP8), Calgranulin B (also designated MRP14), Calgranulin C and the parvalbumin family members, including parvalbumin α and parvalbumin β (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 six EF-hand domains, four 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.

REFERENCES

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CHROMOSOMAL LOCATION

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

SOURCE

Calbindin D28K (AF2E5) is a mouse monoclonal antibody raised against recombinant Calbindin D28K protein of human origin.

PRODUCT

Each vial contains IgG_{2a} in 100 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

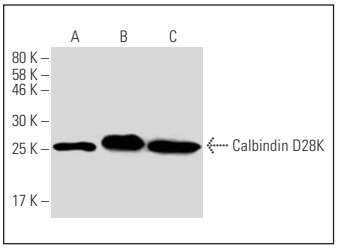
Calbindin D28K (AF2E5) is recommended for detection of Calbindin D28K of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

Suitable for use as control antibody for Calbindin D28K siRNA (h): sc-29878, Calbindin D28K siRNA (m): sc-29879, Calbindin D28K shRNA Plasmid (h): sc-29878-SH, Calbindin D28K shRNA Plasmid (m): sc-29879-SH, Calbindin D28K shRNA (h) Lentiviral Particles: sc-29878-V and Calbindin D28K shRNA (m) Lentiviral Particles: sc-29879-V.

Molecular Weight of Calbindin D28K: 28 kDa.

Positive Controls: mouse brain extract: sc-2253, IMR-32 cell lysate: sc-2409 or rat brain extract: sc-2392.

DATA



Calbindin D28K (AF2E5): sc-135666. Western blot analysis of Calbindin D28K expression in IMR-32 (**A**) whole cell lysate and mouse brain (**B**) and rat brain (**C**) tissue extracts.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **Calbindin D28K (D-4): sc-365360** for Calbindin D28K antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.