

Calb1

Recombinant Rat Calbindin 1

Catalog No.	CRC003A CRC003B CRC003C	Quantity:	1 µg 5 µg 100 µg
Alternate Names:	Calbindin, Vitamin D-dependent calcium-binding protein, avian-type, Calbindin D28, D-28K, Spot 35 protein, Calb1, CaBP28K, MGC93326.		
Description:	<p>Calbindins are Ca-binding proteins belonging to the troponin C superfamily. CALB28K/Calbindin1/CALB1 (D28K/Spot35 protein or cholecalciferin, rat 261 aa; mouse 261 aa; human 261-aa, chromosome 8q21.3-q22.1) was originally described as 27-kDa induced by vitamin D in the duodenum of chicken. In mammals, it is expressed in the kidney, pancreatic islets, and brain. In brain, its synthesis is independent of vitamin D. CABP28K contains 4 active and 2 inactive EF-hand Ca-binding domains. The gene for CABP28K is clustered in the same region as carbonic anhydrase. The neurons in the brains of patients with Huntington disease are CAB28K depleted. There are two types of CaBPs: the "trigger"- and the "buffer"-CaBPs. The conformation of "trigger" type CaBPs changes upon Ca²⁺ binding and exposes regions on protein that interact with target molecules, thus altering their activity. The buffer-type CABP are thought to control the intracellular calcium concentration. Calbindin D-28K is found predominantly in subpopulations of central and peripheral nervous system neurons, and in certain epithelial cells involved in Ca²⁺ transport such as distal tubular cells and cortical collecting tubules of the kidney, and in enteric neuroendocrine cells.</p>		
GenelD:	83839		
Source:	<i>E. coli</i>		
Formulation:	Lyophilized from a sterile filtered solution containing 0.1 mM CaCl ₂		
Purity:	>90% by SDS-PAGE		
Endotoxin Level:	<0.1 ng/µg of CALB1		
Applications:	CALB1 can be used for immunoblots, absorption experiments in immunohistochemistry, radioimmunoassay and intracellular injection.		
Reconstitution:	Centrifuge vial prior to opening. First add sterile water to the vial to fully solubilize the protein to a concentration not less than 100 µg/ml. After complete solubilization of the protein, it can be further diluted to other aqueous solutions.		
Storage & Stability:	Store below -20°C. Reconstituted protein is stable for 1 week at 2-4°C. For long term storage, aliquot and store at -20°C to -80°C with a carrier protein (0.1% HSA or BSA) as a stabilizer. Please note that the addition of any carrier protein into this product may produce unwanted endotoxin. This depends upon the particular application employed. Avoid repeated freeze-thaw cycles.		

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