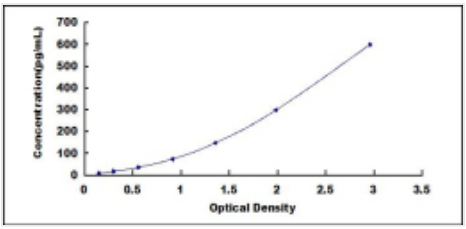
Calbindin (CALB) ELISA Kit for Rat

PRODUCT OVERVIEW

Product Name	Calbindin (CALB), ELISA Kit
Full Product Name	Rat Calbindin (CALB) ELISA Kit
Product Gene Name	CALB elisa kit
Product Synonym Names	CAB27; Calbindin 1,28kDa; Calbindin D28; Vitamin D-dependent calcium-binding protein, avian-type
Species Reactivity	Rat
Assay Type	Double-antibody Sandwich
Samples	Serum, Plasma, Tissue homogenates, Urine and other biological fluids
Detection Range	9.38-600pg/mL
Sensitivity	3.3pg/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Calbindin (CALB). No significant cross-reactivity or interference between Calbindin (CALB) and analogues was observed.
Preparation and Storage	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
Molecular Weight	23,609 Da
OMIM	114050
3D Structure	ModBase 3D Structure for P05937
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Application	Enzyme-linked immunosorbent assay for Antigen Detection.
Intra-assay Precision (Precision within an assay)	3 samples with low, middle and high level Calbindin (CALB) were tested 20 times on one plate, respectively.
Inter-assay Precision (Precision between assays)	3 samples with low, middle and high level Calbindin (CALB) were tested on 3 different plates, 8 replicates in each plate.
CV(%) =	SD/meanX100
Intra-Assay	CV<10%
Inter-Assay	CV<12%
Product Categories/Family for CALB elisa kit	Metabolic pathway
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.

Related Product Information for CALB elisa kit	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Calbindin (CALB). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Calbindin (CALB). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Calbindin (CALB), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Calbindin (CALB) in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CALB elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CALB purchase	MBS2019483 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Calbindin (CALB) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CALB. The ELISA analytical biochemical technique of the MBS2019483 kit is based on CALB antibody-CALB antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CALB antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CALB. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of CALB elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CALB. It may not necessarily be applicable to this product.

NCBI GI #	4826655
NCBI GeneID	793
NCBI Accession #	NP_004920.1
UniProt Primary Accession #	P05937
UniProt Secondary Accession #	B2R696; B7Z9J4
UniProt Related Accession #	P05937
GenBank Nucleotide #	NM_004929.3
NCBI Official Full Name	calbindin
NCBI Official Synonym Full Names	calbindin 1, 28kDa
NCBI Official Symbol	CALB1
NCBI Official Synonym Symbols	CALB; D-28K
UniProt Protein Name	Calbindin
UniProt Synonym Protein Names	Calbindin D28; D-28K; Vitamin D-dependent calcium-binding protein, avian-type
Protein Family	Coniferyl aldehyde dehydrogenase
UniProt Gene Name	CALB1

UniProt Synonym Gene Names	CAB27
UniProt Entry Name	CALB1_HUMAN
NCBI Protein Information	calbindin
NCBI Summary for CALB	The protein encoded by this gene is a member of the calcium-binding protein superfamily that includes calmodulin and troponin C. Originally described as a 27 kDa protein, it is now known to be a 28 kDa protein. It contains four active calcium-binding domains, and has two modified domains that are thought to have lost their calcium binding capability. This protein is thought to buffer entry of calcium upon stimulation of glutamate receptors. Depletion of this protein was noted in patients with Huntington disease. [provided by RefSeq, Jan 2015]
UniProt Comments for CALB	CALB1: Buffers cytosolic calcium. May stimulate a membrane Ca(2+)-ATPase and a 3',5'-cyclic nucleotide phosphodiesterase. Interacts with RANBP9. Belongs to the calbindin family. Protein type: Calcium-binding Chromosomal Location of Human Ortholog: 8q21.3 Cellular Component: cell soma; axon; dendrite; synapse; nucleus; cytosol Molecular Function: vitamin D binding; protein binding; zinc ion binding; calcium ion binding Biological Process: cytosolic calcium ion homeostasis; long-term memory; short-term memory; regulation of synaptic plasticity; locomotory behavior
Research Articles on CALB	**1.** expressed by different neuron types, both inhibitory (GABAergic) and excitatory (glutamatergic), involved in both intrinsic and extrinsic circuits of the human cerebellar cortex
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