

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human Calbindin D in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Calbindin D Ala2-Asn261 Accession # P05937
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

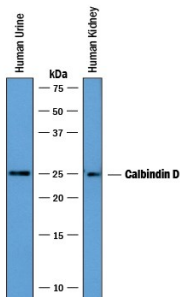
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	5 µg/mL	See Below
Immunohistochemistry	3-15 µg/mL	Immersion fixed paraffin-embedded sections of human brain (hippocampus)
Simple Western	10 µg/mL	See Below

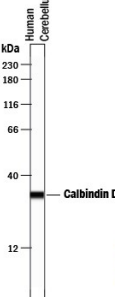
DATA

Western Blot



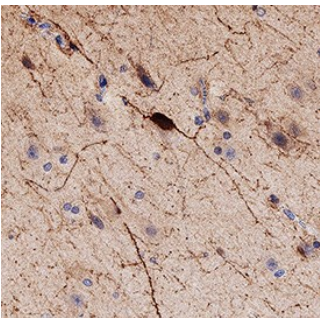
Detection of Human Calbindin D by Western Blot. Western blot shows human urine and lysates of human kidney tissue. PVDF membrane was probed with 5 µg/mL of Goat Anti-Human Calbindin D Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3320) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Calbindin D at approximately 25 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Calbindin D by Simple Western™. Simple Western lane view shows lysates of human brain (cerebellum) tissue, loaded at 0.2 mg/mL. A specific band was detected for Calbindin D at approximately 32 kDa (as indicated) using 10 µg/mL of Goat Anti-Human Calbindin D Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3320). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

Immunohistochemistry



Calbindin D in Human Brain (Hippocampus). Calbindin D was detected in immersion fixed paraffin-embedded sections of human brain (hippocampus) using Goat Anti-Human Calbindin D Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3320) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cell bodies and synaptic vesicles. Staining was performed using our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">• 12 months from date of receipt, -20 to -70 °C as supplied.• 1 month, 2 to 8 °C under sterile conditions after reconstitution.• 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Calbindin D, also known as Calbindin 1, is a Vitamin D-dependent cytoplasmic protein in the EF-hand calcium binding protein family that includes calmodulin, parvalbumin, troponin C, and S100. Calbindin D is widely expressed and regulates calcium homeostasis. Calbindin D protects neurons from excitotoxic and apoptotic cell death by buffering excess calcium. Human, mouse, and rat Calbindin D share 98% amino acid sequence identity.