

DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Calbindin D in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant human S100P.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 401025
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Calbindin D Met1-Asn261 Accession # P05937
<b>Formulation</b>	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.

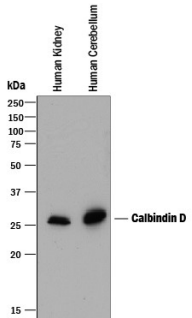
## APPLICATIONS

**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
<b>Western Blot</b>	0.25 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Simple Western</b>	10 µg/mL	See Below

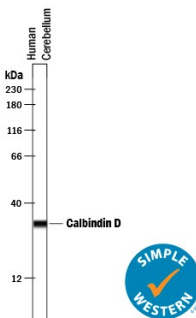
## DATA

**Western Blot**



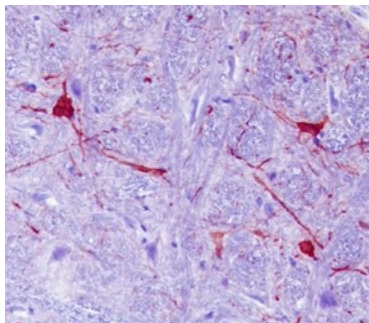
**Detection of Human Calbindin D by Western Blot.** Western blot shows lysates of human kidney tissue and human brain (cerebellum) tissue. PVDF membrane was probed with 0.25 µg/mL of Mouse Anti-Human Calbindin D Monoclonal Antibody (Catalog # MAB3320) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Calbindin D at approximately 28 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Simple Western**



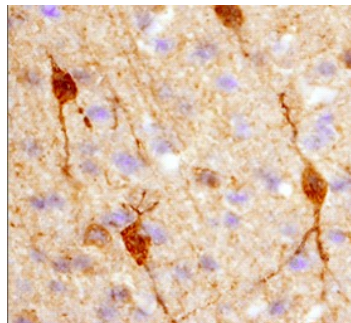
**Detection of Human Calbindin D by Simple Western™.** Simple Western lane view shows lysates of human brain (cerebellum) tissue, loaded at 0.2 mg/mL. A specific band was detected for Calbindin D at approximately 32 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human Calbindin D Monoclonal Antibody (Catalog # MAB3320). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

**Immunohistochemistry**



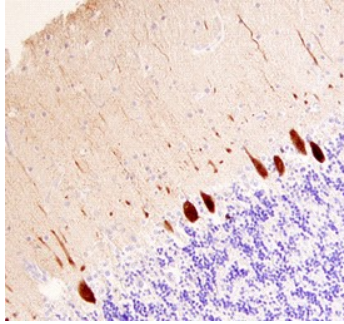
**Calbindin D in Rat Brainstem.** Calbindin D was detected in perfusion fixed paraffin-embedded sections of rat brainstem (medulla) using 25 µg/mL Mouse Anti-Human Calbindin D Monoclonal Antibody (Catalog # MAB3320) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-AEC Cell & Tissue Staining Kit (red; Catalog # CTS003) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**Immunohistochemistry**



**Calbindin D in Rat Brain.** Calbindin D was detected in perfusion fixed frozen sections of rat brain (hypothalamus) using 25 µg/mL Mouse Anti-Human Calbindin D Monoclonal Antibody (Catalog # MAB3320) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

## Immunohistochemistry



### Calbindin D in Human Brain.

Calbindin D was detected in immersion fixed paraffin-embedded sections of human brain (cerebellum) using 25 µg/mL Mouse Anti-Human Calbindin D Monoclonal Antibody (Catalog # MAB3320) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

## PREPARATION AND STORAGE

**Reconstitution** Reconstitute at 0.5 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.

- 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 99% amino acid sequence identity.