

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse ZIC1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human ZIC1 Met1-Gly198 Accession # Q15915
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 as a 0.2 µm filtered solution in PBS.

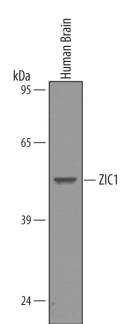
APPLICATIONS

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	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

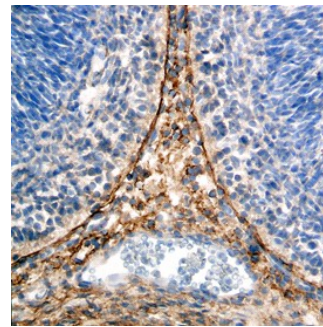
DATA

Western Blot



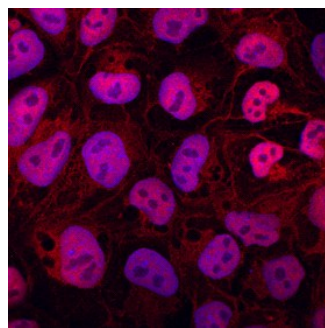
Detection of Human/Mouse ZIC1 by Western Blot. Western blot shows lysates of human brain tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse ZIC1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4978) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for ZIC1 at approximately 54 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



ZIC1 in Mouse Brain. ZIC1 was detected in immersion fixed frozen sections of mouse brain (cerebellum) using 15 µg/mL Goat Anti-Human/Mouse ZIC1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4978) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

Immunocytochemistry



ZIC1 in Human iPSK3 cells. ZIC1 was detected in immersion fixed human plasmid-derived induced pluripotent stem cells (iPSK3) using Goat Anti-Human/Mouse ZIC1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4978) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to nuclei and cytoplasm. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

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

ZIC1 (zinc-finger protein of the cerebellum 1) is a 54-60 kDa member of the GLI C2H2-type Zn-finger protein family. It is expressed in embryonic sclerotome and dermomyotome and in postmitotic cerebellar granule cells and retinal ganglion cells. ZIC1 is a transcription factor that promotes ApoE expression and blocks activation of Math1, allowing for neuroblast multiplication at the expense of differentiation. Human ZIC1 is 447 amino acids (aa) in length. It contains N-terminal poly Ala and His segments, followed by five C2H2-type Zn-fingers. Although the first two are atypical (aa 225-296), the last three Zn-fingers (aa 302-384) are canonical and bind to GLI1, 2 and 3. There is one potential alternate start site at Met353. Over aa 1-198, human ZIC1 is 99% aa identical to mouse ZIC1.