

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Neuroplastin 65 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human Neuroplastin 55 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Neuroplastin 65 Gln29-His336 Accession # NP_036560
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

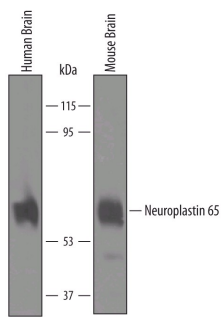
APPLICATIONS

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
Immunohistochemistry	5-15 µg/mL	See Below

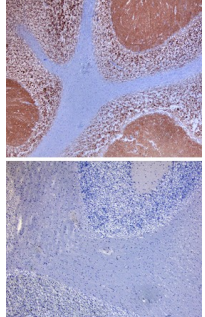
DATA

Western Blot



Detection of Human/Mouse Neuroplastin 65 by Western Blot. Western blot shows lysates of human brain and mouse brain tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse Neuroplastin 65 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5360) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Neuroplastin 65 at approximately 55 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 8](#).

Immunohistochemistry



Neuroplastin 65 in Human Brain. Neuroplastin 65 was detected in immersion fixed paraffin-embedded sections of human brain (cerebellum) using 3 µg/mL Goat Anti-Human/Mouse Neuroplastin 65 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5360) overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

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.
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

Neuroplastin (NPTN; also stromal cell-derived receptor 1 and Np55) is a 52-57 kDa member of the Ig-superfamily. It is widely expressed and likely serves as a cell adhesion molecule in multiple tissues. Human Neuroplastin is 282 amino acids (aa) in length. It is a type I transmembrane glycoprotein that contains two Ig-like domains (aa 32-119 and 122-213) and a 38 aa cytoplasmic region (aa 245-282). There is a brain-enriched 65 kDa form (Np65) that negatively regulates LTP in the hippocampus. It contains an N terminal 116 aa Ig-like domain-containing insert after Asn30 and interacts homotypically. Notably, human and rodent Np65 expression patterns are different in brain, with rodent Np65 not predominating in cerebellum. Over aa 29-336, human Np65 is 95% aa identical to mouse Np65.