Mouse Cadherin-4/R-Cadherin Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6677

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Cadherin-4/R-Cadherin in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human Cadherin-4/R-Cadherin and recombinant mouse (rm) Cadherin-2 is observed and less than 1% cross-reactivity with rmE-Cadherin is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Cadherin-4/R-Cadherin His21-Ala731 Accession # P39038
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.

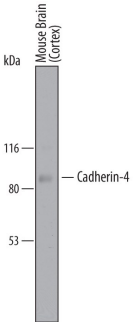
APPLICATIONS

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
Immunohistochemistry	5-15 µg/mL	See Below

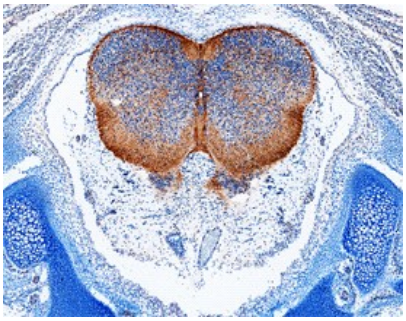
DATA

Western Blot



Detection of Mouse Cadherin-4/R-Cadherin by Western Blot. Western blot shows lysates of mouse brain (cortex) tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Mouse Cadherin-4/R-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6677) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Cadherin-4/R-Cadherin at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



Cadherin-4/R-Cadherin in Mouse Brain. Cadherin-4/R-Cadherin was detected in immersion fixed frozen sections of embryonic mouse brain using Sheep Anti-Mouse Cadherin-4/R-Cadherin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6677) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to developing brain. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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

Cadherin-4 (also Retinal/R-Cadherin) is a 120 kDa (100 kDa predicted) member of the classical cadherin family of molecules. It is expressed on mammary epithelium, olfactory bulb neurons, cerebellar granule cells, vascular smooth muscle, astrocytes and pancreatic β-cells. Cadherin-4 forms both homodimers and heterodimers with N-cadherin. These complexes will oligomerize, providing sources for adhesion and migration. Cadherin-4 also binds to KLRG1 expressed on NK, T and Treg lymphocytes. Mouse cadherin-4 proprecursor is 893 amino acids (aa) in length. It contains a 146 aa propeptide (aa 21-166) coupled to a 746 amino acid (aa) type I transmembrane mature protein (aa 167-913). The mature region possesses a 565 aa extracellular domain (aa 167-731) plus a 160 aa cytoplasmic region (aa 753-913). Consistent with classical cadherins, cadherin-4 contains five cadherin repeats in the extracellular domain (aa 167-721). There is one potential splice form that shows a 44 aa substitution for aa 291-913. Over aa 21-731, mouse cadherin-4 shares 98% and 93% aa identity with rat and human cadherin-4, respectively.

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