Human RGS8 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6880

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human RGS8 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human RGS4 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human RGS8 Asn10-Thr76 Accession # P57771
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.

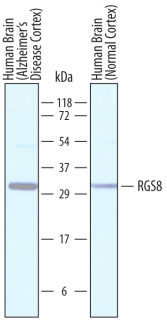
APPLICATIONS

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

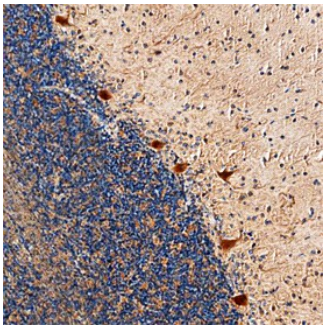
DATA

Western Blot



Detection of Human RGS8 by Western Blot. Western blot shows lysates of human brain (Alzheimer's disease cortex) tissue and human brain (normal cortex) tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human RGS8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6880) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for RGS8 at approximately 30 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



RGS8 in Human Brain. RGS8 was detected in immersion fixed paraffin-embedded sections of human brain (cerebellum) using Sheep Anti-Human RGS8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6880) at 3 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 Purkinje neurons. View our protocol for Chromogenic IHC Staining of Paraffin-embedded 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

RGS8 (Regulator of G-protein signaling 8) is a 22-23 kDa (predicted) member of the B/R4 subfamily, RGS family of proteins. It is expressed in NK cells and neurons, particularly cerebellar Purkinje cells, and is known to regulate GPCR signaling. When GPCRs are activated, a GPCR cytoplasmic domain associated Gαβγ heterotrimer dissociates in response to GTP binding. This generates Gα:GTP and Gβγ dimers that initiate downstream signaling. Gα has GTPase activity, and when GTP is hydrolyzed, the Gαβγ trimer reforms and stops signaling. RGS8 potentiates Gα GTP hydrolase activity, particularly when associated with M1 muscarinic acetylcholine receptors. Human RGS8 is 180 amino acids (aa) in length, and is characterized by the presence of one RGS domain (aa 56-171), and an N-terminal GPCR binding motif (aa 6-9). There is one splice variant that shows a 27 aa substitution for aa 1-9. Expression of this variant may negatively impact its regulation of Gα-coupled responses. Over aa 10-76, human RGS8 shares 98% aa identity with mouse RGS8.

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