Human TAFA1/FAM19A1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF5154

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TAFA1/FAM19A1 in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human (rh) TAFA3 and rhTAFA4 is observed, less than 10% cross-reactivity with rhTAFA2 is observed and less than 1% cross-reactivity with rhTAFA5 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human TAFA1/FAM19A1 Ser26-Thr133 Accession # NP_998774
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.

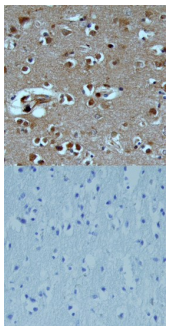
APPLICATIONS

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	0.1 µg/mL	Recombinant Human TAFA1/FAM19A1 (Catalog # 5154-TA)
Immunohistochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize the the enhancemment of neurite outgrowth of cortical neurons from E16-E18 rat embryos induced by TAFA-1. The Neutralization Dose (ND50) is typically 15 µg/mL in the presence of 10 µg/mL Recombinant Human TAFA-1.	

DATA

Immunohistochemistry



TAFA1/FAM19A1 in Human Brain. TAFA1/FAM19A1 was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using Goat Anti-Human TAFA1/FAM19A1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5154) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling when 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	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

TAFA1 (also FAM19A1) is a secreted, 13 kDa member of the FAM19/TAFA family of chemokine-like proteins (1). It is synthesized as a 133 amino acid (aa) precursor that contains a 19 aa signal sequence and a 114 aa mature chain. Like other members of the FAM19/TAFA family, mature TAFA1 contains 10 regularly spaced cysteine residues that follow the pattern CX7CCX13CXCX14CX11CX4CX5CX10C, in which C represents a conserved cysteine residue and X represents a noncysteine amino acid (1). Human TAFA1 is 100% aa identical to mouse TAFA1. TAFA1 is expressed exclusively in the brain, with highest expression in the frontal cortex, temporal cortex, occipital cortex, parietal cortex and medulla, and low levels in the basal ganglion, thalamus, and cerebellum (1). The biological functions of TAFA family members remain to be determined, but there are a few tentative hypotheses. First, TAFAs may modulate immune responses in the CNS by functioning as brain-specific chemokines, and may act with other chemokines to optimize the recruitment and activity of immune cells in the CNS (1). Second, TAFAs may represent a novel class of neurokines that act as regulators of immune nervous cells (1, 2). And third, TAFAs may control axonal sprouting following brain injury (1).

References:

1. Tang, Y.T. *et al.* (2004) Genomics **83**:727.
2. Benveniste, E. (1998) Cytokine Growth Factor Rev. **9**:259.

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