Human TAFA2/FAM19A2 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4179

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TAFA2/FAM19A2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 10% cross-reactivity with recombinant human (rh) TAFA3 and rhTAFA4 is observed, and less than 2% cross-reactivity with rhTAFA5 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TAFA2/FAM19A2 Ala31-His131 Accession # Q8N3H0
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

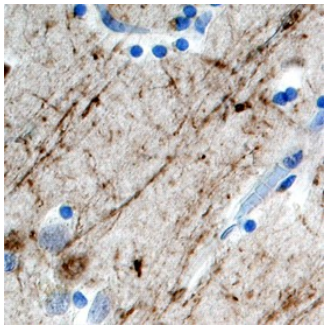
APPLICATIONS

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
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-2. The Neutralization Dose (ND50) is typically 5 µg/mL in the presence of 10 µg/mL Recombinant Human TAFA-2.	

DATA

Immunohistochemistry



TAFA2/FAM19A2 in Human Brain. TAFA2/FAM19A2 was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using Human TAFA2/FAM19A2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4179) at 10 µg/mL 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 using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal processes. 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. *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.

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BACKGROUND

TAFA2 (also FAM19A2) is a secreted, 11 kDa member of the FAM19/TAFA family of chemokine-like proteins (1). It is synthesized as a 131 amino acid (aa) precursor that contains a 30 aa signal sequence and a 101 aa mature chain. Like other members of the FAM19/TAFA family, with the exception of TAFA5, mature TAFA1 contains 10 regularly spaced cysteine residues that follow the pattern $CX_7CCX_{13}CXCX_{14}CX_{11}CX_4CX_5CX_{10}C$, where C represents a conserved cysteine residue and X represents any noncysteine amino acid (1). Human TAFA2 is 97% aa identical to mouse TAFA2 (1). TAFA2 expression can be detected in the central nervous system (CNS), colon, heart, lung, spleen, kidney, and thymus, but its expression in the CNS is 50- to 1000-fold higher than in other tissues (1). Within the CNS, TAFA2 expression is highest in the occipital and frontal cortex (3- to 10-fold more abundantly expressed than in other cortical regions) and medulla (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). Finally, 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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