Human/Mouse/Rat TAFA5/FAM19A5 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF5148

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human and mouse TAFA5/FAM19A5 in Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) TAFA1, rhTAFA2, rhTAFA3, and rhTAFA4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human TAFA5/FAM19A5 Gln26-Ser125 Accession # NP_056196
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.

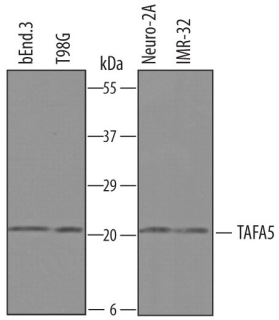
APPLICATIONS

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
Flow Cytometry	2.5 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

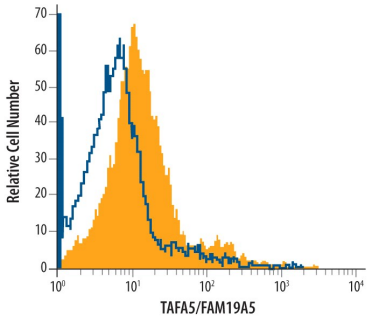
DATA

Western Blot



Detection of Human and Mouse TAFA5/FAM19A5 by Western Blot. Western blot shows lysates of bEnd.3 mouse endothelioma cell line, T98G human glioblastoma cell line, Neuro-2A mouse neuroblastoma cell line, and IMR-32 human neuroblastoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse/Rat TAFA5/FAM19A5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5148) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for TAFA5/FAM19A5 at approximately 21 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Flow Cytometry



Detection of TAFA5/FAM19A5 in IMR-32 Human Cell Line by Flow Cytometry. IMR-32 human neuroblastoma cell line was stained with Goat Anti-Human/Mouse/Rat TAFA5/FAM19A5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5148, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108).

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.

BACKGROUND

TAFA5 (also FAM19A5) is a 14 kDa type I transmembrane protein and member of the FAM19/TAFA family of chemokine-like proteins (1). Human TAFA5 is 132 amino acids (aa) in length. It contains a 15 aa extracellular domain, a 23 aa transmembrane sequence, and a 95 aa cytoplasmic region. Alternate splicing produces two additional isoforms. Isoform 2, a secreted form, has a 31 aa substitution for residues 1-38 in isoform 1. Isoform 3 has an eight aa substitution for residues 1-87 in isoform1. Human TAFA5 is 100% aa identical to mouse TAFA5 (1). Within the TAFA family, TAFA5 is the most distinct member, while TAFAs 2, 3, and 4 are the most closely related members (1). Real-time PCR analysis indicates that TAFA5 mRNA expression is restricted to the central nervous system (CNS), with the highest level in the basal ganglia and cerebellum (1). The biological functions of TAFA family members are not yet known, 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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