

Human TAFA5/FAM19A5 Antibody

Monoclonal Rat IgG₁ Clone # 463102 Catalog Number: MAB5148

DESCRIPTION

Species Reactivity	Human	
Specificity	Detects TAFA5/FAM19A5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human TAFA2, 3, or 4 is observed.	
Source	Monoclonal Rat IgG ₁ Clone # 463102	
Purification	Protein A or G purified from hybridoma culture supernatant	
Immunogen	<i>E. coli</i> -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	Recombinant Human TAFA5/FAM19A5 (Catalog # 5148-TA)	
Immunohistochemistry	8-25 μg/mL	See Below	

DATA

Immunohistochemistry



TAFA5/FAM19A5 in Human Cerebellum. TAFA5/FAM19A5 was detected in immersion fixed paraffin-embedded sections of human cerebellum using Human TAFA5/FAM19A5 Monoclonal Antibody (Catalog # MAB5148) at 15 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-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to Purkinje neurons. View our protocol for Chromogenic IHC Staining of Paraffinembedded Tissue Sections.

PREPARATION AND STORAGE		
Reconstitution	Reconstitute at 0.5 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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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956 USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373 Europe | Middle East | Africa TEL +44 (0)1235 529449