

DESCRIPTION

Species Reactivity	Human
Specificity	Detects TFAF5/FAM19A5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human TFAF2, 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 TFAF5/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 as a 0.2 µm filtered solution in PBS.

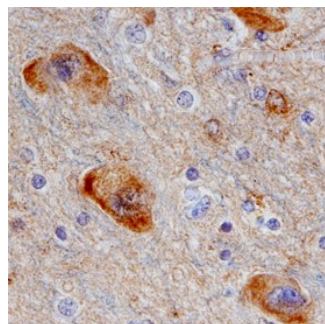
APPLICATIONS

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 TFAF5/FAM19A5 (Catalog # 5148-TA)
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



TFAF5/FAM19A5 in Human Hypothalamus. TFAF5/FAM19A5 was detected in immersion fixed paraffin-embedded sections of human hypothalamus using Human TFAF5/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 neuronal cell bodies. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded 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. <ul style="list-style-type: none"> • 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

TFAF5 (also FAM19A5) is a 14 kDa type I transmembrane protein and member of the FAM19/TAFAs family of chemokine-like proteins (1). Human TFAF5 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 isoform 1. Human TFAF5 is 100% aa identical to mouse TFAF5 (1). Within the TAFAs family, TFAF5 is the most distinct member, while TAFAs 2, 3, and 4 are the most closely related members (1). Real-time PCR analysis indicates that TFAF5 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 TAFAs 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 neurokinins 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.