

DESCRIPTION

Species Reactivity	Human
Specificity	Detects TFA5/FAM19A5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human TFA2, 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 TFA5/FAM19A5 Gln26-Ser125 Accession # NP_056196
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

TFA5 (also FAM19A5) is a 14 kDa type I transmembrane protein and member of the FAM19/TFA family of chemokine-like proteins (1). Human TFA5 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 TFA5 is 100% aa identical to mouse TFA5 (1). Within the TFA family, TFA5 is the most distinct member, while TFA2, 3, and 4 are the most closely related members (1). Real-time PCR analysis indicates that TFA5 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 TFA family members are not yet known, but there are a few tentative hypotheses. First, TFA5 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, TFA5 may represent a novel class of neurokinins that act as regulators of immune nervous cells (1-2). Finally, TFA5 may control axonal sprouting following brain injury (1).

PRODUCT SPECIFIC NOTICES

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