

DESCRIPTION

Species Reactivity	Human
Specificity	Detects TFAA5/FAM19A5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human TFAA2, 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 TFAA5/FAM19A5 Gln26-Ser125 Accession # NP_056196
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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

TFAA5 (also FAM19A5) is a 14 kDa type I transmembrane protein and member of the FAM19/TFAA family of chemokine-like proteins (1). Human TFAA5 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 TFAA5 is 100% aa identical to mouse TFAA5 (1). Within the TFAA family, TFAA5 is the most distinct member, while TFAAs 2, 3, and 4 are the most closely related members (1). Real-time PCR analysis indicates that TFAA5 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 TFAA family members are not yet known, but there are a few tentative hypotheses. First, TFAAs 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, TFAAs may represent a novel class of neurokinins that act as regulators of immune nervous cells (1-2). Finally, TFAAs may control axonal sprouting following brain injury (1).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.