

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TAFA4/FAM19A4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human TAFA1, 2, 3, or 5 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 480103
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human TAFA4 Ser35-Arg140 Accession # Q96LR4
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	A172 human glioblastoma cell line fixed with paraformaldehyde and permeabilized with saponin

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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

TAFA4 (also FAM19A4) is a secreted, 12 kDa member of the FAM19/TAFA family of chemokine-like proteins (1). It is synthesized as a 140 amino acid (aa) precursor that contains a 35 aa signal sequence and a 105 aa mature chain. Like other members of the FAM19/TAFA family, with the exception of TAFA5, mature TAFA1 contains 10 regularly spaced cysteine residues that follow the pattern C_xC_xC_x₁₃C_xC_x₁₄C_x₁₁C_x₄C_x₅C_x₁₀C, where C represents a conserved cysteine residue and x represents any noncysteine amino acid (1). Human TAFA4 is 90% aa identical to mouse TAFA4 (1). Real-time PCR analysis indicates that TAFA4 mRNA expression is restricted to the central nervous system (CNS), with the highest level in the thalamus (1). 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). TAFAs may represent a novel class of neurokinins that act as regulators of immune nervous cells (1, 2). TAFAs may also 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.

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.