

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human TFAA2/FAM19A2 in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant human TFAA5 is observed.                                                                                                                   |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human TFAA2/FAM19A2<br>Ala31-His131<br>Accession # Q8N3H0                                                                                                                                                                   |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

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|-----------------------------|------------------------------------------------------------------------|
| <b>Neutralization</b>       | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

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

#### BACKGROUND

TFAA2 (also FAM19A2) is a secreted, 11 kDa member of the FAM19/TFAA family of chemokine-like proteins (1). It is synthesized as a 131 amino acid (aa) precursor that contains a 30 aa signal sequence and a 101 aa mature chain. Like other members of the FAM19/TFAA family, with the exception of TFAA5, mature TFAA1 contains 10 regularly spaced cysteine residues that follow the pattern CX<sub>7</sub>CCX<sub>13</sub>CXCX<sub>14</sub>CX<sub>11</sub>CX<sub>4</sub>CX<sub>5</sub>CX<sub>10</sub>C, where C represents a conserved cysteine residue and X represents any noncysteine amino acid (1). Human TFAA2 is 97% aa identical to mouse TFAA2 (1). TFAA2 expression can be detected in the central nervous system (CNS), colon, heart, lung, spleen, kidney, and thymus, but its expression in the CNS is 50- to 1000-fold higher than in other tissues (1). Within the CNS, TFAA2 expression is highest in the occipital and frontal cortex (3- to 10-fold more abundantly expressed than in other cortical regions) and medulla (1). The biological functions of TFAA family members remain to be determined, 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

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