

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Fc mu R/FAIM3 in direct ELISAs. Detects human, mouse, and rat Fc mu R/FAIM3 in Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 992338
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell line HEK293-derived recombinant human Fc mu R/FAIM3 Arg18-Gly251 Accession # O60667
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	HEK293 Human Cell Line Transfected with Human FAIM3 and eGFP

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

The human *FAIM3* gene (also known as FCMR or TOSO), is a transmembrane sialoglycoprotein expressed mainly by lymphocytes. FAIM3 is a type I membrane protein with an intracellular C-terminal domain and an extracellular N-terminal domain (1). The extracellular domain has homology to the immunoglobulin variable region domains (1) and FAIM3 is identified as an Fc receptor for IgM (2, 3). The amino acid sequence of human FAIM3 is 58% and 55% identical to that of mouse and rat FAIM3, respectively. FAIM3 was shown to be over-expressed in chronic lymphocytic leukemia (CLL) (4) and associated with disease progression (5, 6). FAIM3 has also been linked to the homeostasis and activation of the innate immune system (7). Interestingly, there is growing evidence that neurodegenerative diseases are associated with the activation of the immune surveillance system. This system is responsible for controlling danger signals and responding accordingly to the magnitude and duration of the threat (8, 9).

References:

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4. Proto-Siqueira R *et al.* (2008) *Blood*, **112**:394.
5. Pallasch, C *et al.* (2008) *Blood*, **112**:4213.
6. Pallasch, C P *et al* (2009) *Leukemia & lymphoma*, **50**:498.
7. Sigruener, A *et al* (2007) *Biochemical and biophysical research communications*, **359**:723.
8. Richards R I *et al* (2016) *Front. Neurosci.* **10**:193.
9. Planells-Ferrer L *et al* (2016) *J Neurochem.* **139**:11.

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