

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IGSF8/CD316 in direct ELISAs. Detects human, mouse, and rat IGSF8/CD316 in Western blots.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2587G
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human IGSF8/CD316 Arg28-Thr579 Accession # Q969P0-1
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and 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.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	SHSY-5Y human neuroblastoma cell line

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

IGSF8 (Immunoglobulin superfamily member 8), also known as EWI-2, KCT-4, LIR-D1, and PGRL, is a 75-kDa cell surface protein belonging to the immunoglobulin superfamily (1). IGSF8 is widely expressed, with pronounced mRNA expression in the brain and protein expression on peripheral blood lymphocytes and hepatocytes where it colocalizes with CD81 (1-3). It strongly associates with tetraspanins CD9 and CD81 which may act as physical linkers to form a complex with α3β1 integrin that may regulate cell aggregation and motility on laminin-5 (4). Human IGSF8 is synthesized as a 613 aa protein that includes a 27 aa signal peptide, a 552 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 13 aa cytoplasmic tail. Within the ECD, human IGSF8 shares 91% and 90% aa sequence identity with mouse and rat IGSF8, respectively. IGSF8 is an inducible receptor for Heat Shock Protein A8 (HSPA8) on activated dendritic cells (5). IGSF8 can interact with α-Actinin to regulate T cell immune synapses and HIV viral infection (6). In human glioma patients, low IGSF8 expression correlates with shorter survival time. Studies have shown that re-expression of IGSF8 in malignant glioblastoma cell lines inhibited glioblastoma colony formation in soft agar and caused diminished cell motility and invasion (7).

References:

1. Clark, K.L. *et al.* (2001) J. Immunol. **167**:5115.
2. Stipp, C.S. *et al.* (2001) J. Biol. Chem. **276**:40545.
3. Charrin, S. *et al.* (2003) Biochem. J. **373**:409.
4. Stipp, C.S. *et al.* (2003) J. Cell Biol. **163**:1167.
5. Kettner, S. *et al.* (2007) Mol Cell Biol. **27**:7718.
6. Gordón-Alonso, M. *et al.* (2012) J Immunol **189**:689.
7. Kolesnikova, T. *et al.* (2009) Neoplasia **11**:77.

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