

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IGSF8/CD316 in direct ELISAs.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 2587A
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Human embryonic kidney cell, HEK293-derived human IGSF8/CD316 protein Arg28-Thr579 Accession # Q969P0
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

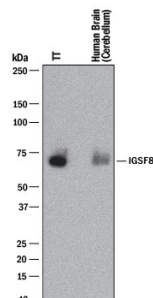
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	2 µg/mL	See Below
<b>Flow Cytometry</b>	0.25 µg/10 <sup>6</sup> cells	See Below
<b>Simple Western</b>	20 µg/mL	Human Brain (Cerebellum)
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

## DATA

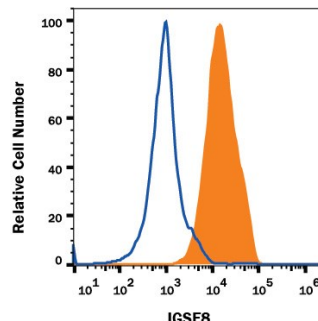
### Western Blot



#### Detection of Human IGSF8/CD316 by Western Blot.

Western blot shows lysates of TT human medullary thyroid cancer cell line and human brain (cerebellum) tissue. PVDF membrane was probed with 2 µg/mL of Rabbit Anti-Human IGSF8/CD316 Monoclonal Antibody (Catalog # MAB3117) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for IGSF8/CD316 at approximately 70 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

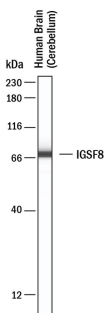
### Flow Cytometry



#### Detection of IGSF8 in SHSY-5Y human cell line by Flow Cytometry.

SHSY-5Y human neuroblastoma cell line was stained with Rabbit Anti-Human IGSF8 Monoclonal Antibody (Catalog # MAB3117, filled histogram) or Rabbit IgG isotype control antibody (Catalog # MAB1050, open histogram) followed by Anti-Rabbit IgG APC-conjugated Secondary Antibody (Catalog # F0111). View our protocol for [Staining Membrane-associated Proteins](#).

### Simple Western



#### Detection of Human IGSF8/CD316 by Simple Western™.

Simple Western lane view shows lysates of Human Brain (Cerebellum), loaded at 0.2 mg/mL. A specific band was detected for IGSF8/CD316 at approximately 73 kDa (as indicated) using 20 µg/mL of Rabbit Anti-Human IGSF8/CD316 Monoclonal Antibody (Catalog # MAB3117). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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  $\alpha 3 \beta 1$  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  $\alpha$ -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.