

**ZF21 Antibody**  
**Catalog # ASC11511****Specification**

---

**ZF21 Antibody - Product Information**

Application	WB, IF, E
Primary Accession	<a href="#">O9BQ24</a>
Other Accession	<a href="#">NP_001185882</a> , <a href="#">312147341</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	ZF21 antibody can be used for detection of ZF21 by Western blot at 1 µg/mL. For immunofluorescence start at 20 µg/mL.

**ZF21 Antibody - Additional Information**Gene ID **79038****Target/Specificity**

ZFYE21; At least two isoforms of ZF21 are known to exist; this antibody will detect both isoforms.

**Reconstitution & Storage**

ZF21 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

ZF21 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ZF21 Antibody - Protein Information****Name** ZFYVE21**Function**

Plays a role in cell adhesion, and thereby in cell motility which requires repeated formation and disassembly of focal adhesions. Regulates microtubule-induced PTK2/FAK1 dephosphorylation, an event important for focal adhesion disassembly, as well as integrin beta- 1/ITGB1 cell surface expression.

**Cellular Location**

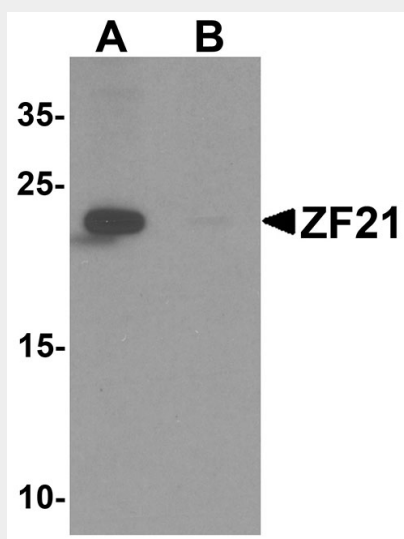
Cell junction, focal adhesion. Cytoplasmic vesicle. Endosome. Note=Within cytoplasmic vesicles, partially colocalizes with EEA1, an endosomal marker

**ZF21 Antibody - Protocols**

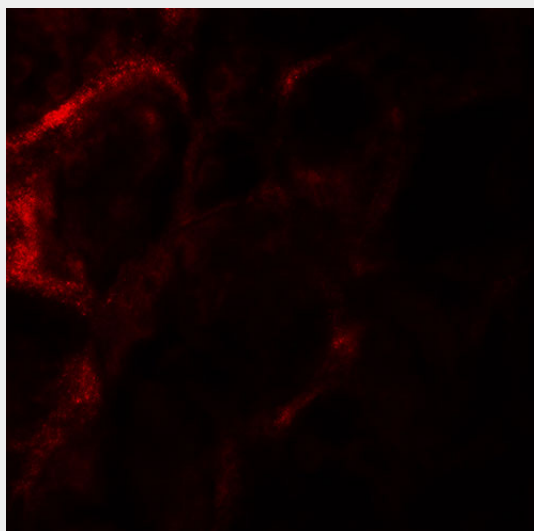
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### ZF21 Antibody - Images



Western blot analysis of ZF21 in 3T3 cell tissue lysate with ZF21 antibody at 1  $\mu$ g/ml in (A) the absence and (B) the presence of blocking peptide.



Immunofluorescence of ZF21 in human kidney tissue with ZF21 antibody at 20  $\mu$ g/mL.

#### ZF21 Antibody - Background

ZF21 Antibody: ZF21 was initially identified as protein that could bind to the cytoplasmic tail of MT1-MMP (Membrane-type 1 matrix metalloproteinase), a potent invasion-promoting protease.

ZF21 is a member of a protein family characterized by the presence of a phosphatidylinositol 3-phosphate-binding FYVE domain and regulates focal adhesions (FAs) and cell movement. Knockdown of ZF21 expression resulted in a delay of FA disassembly following induction of synchronous disassembly of FAs by nocodazole treatment, suggesting that ZF21 is involved in FA disassembly. ZF21 contains a noncanonical pleckstrin homology domain that is a possible therapeutic target to treat metastatic cancer.

#### **ZF21 Antibody - References**

Uekita T, Gotoh I, Kinoshita T, et al. Membrane-type 1 matrix metalloproteinase cytoplasmic tail-binding protein-1 is a new member of the Cupin superfamily. A possible multifunctional protein acting as an invasion suppressor down-regulated in tumors. J. Biol. Chem. 2004; 279:12734-43.

Nagano M, Hoshino D, Sakamoto T, et al. ZF21 protein regulates cell adhesion and motility. J. Biol. Chem. 2010; 285:21013-22.

Nagano M, Hoshino D, Koshiba S, et al. ZF21 protein, a regulator of the disassembly of focal adhesions and cancer metastasis, contains a novel noncanonical pleckstrin homology domain. J. Biol. Chem. 2011; 286:31598-609.