

ZF21 Antibody
Catalog # ASC11511**Specification**

ZF21 Antibody - Product Information

Application	WB, IF
Primary Accession	Q9BQ24
Other Accession	NP_001185882 , 312147341
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 InformationGene ID **79038****Target/Specificity**

ZFYVE21; 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

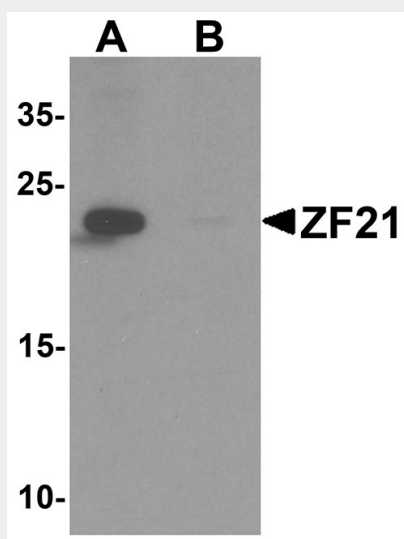
Cell junction, focal adhesion. Cytoplasmic vesicle. Endosome. Note=Within cytoplasmic vesicles, partially colocalizes with EEA1, an endosomal marker

ZF21 Antibody - Protocols

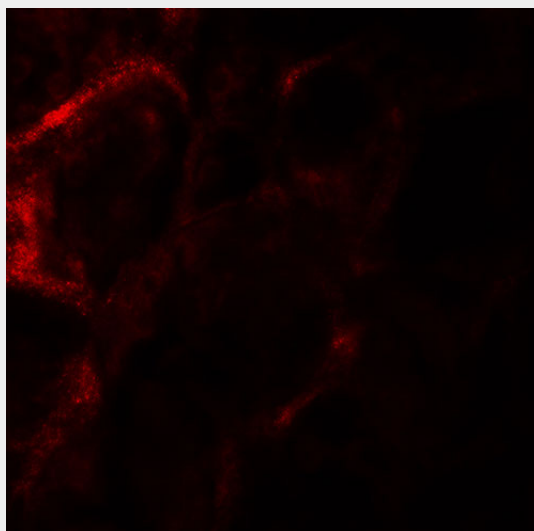
Provided below are standard protocols that you may find useful for product applications.

- [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 $\mu\text{g/ml}$ in (A) the absence and (B) the presence of blocking peptide.



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

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.