

# ZF21 Antibody

Catalog # ASC11511

## Product Information

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<b>Application</b>	WB, IF, E
<b>Primary Accession</b>	<a href="#">Q9BQ24</a>
<b>Other Accession</b>	<a href="#">NP_001185882</a> , <a href="#">312147341</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	26506
<b>Concentration (mg/ml)</b>	1 mg/mL
<b>Conjugate</b>	Unconjugated
<b>Application Notes</b>	ZF21 antibody can be used for detection of ZF21 by Western blot at 1 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL.

## Additional Information

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<b>Gene ID</b>	79038
<b>Other Names</b>	Zinc finger FYVE domain-containing protein 21, ZF21, ZFYVE21
<b>Target/Specificity</b>	ZFYVE21; At least two isoforms of ZF21 are known to exist; this antibody will detect both isoforms.
<b>Reconstitution &amp; Storage</b>	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.
<b>Precautions</b>	ZF21 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ZFYVE21
<b>Function</b>	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.
<b>Cellular Location</b>	Cell junction, focal adhesion. Cytoplasmic vesicle. Endosome. Note=Within cytoplasmic vesicles, partially colocalizes with EEA1, an endosomal marker

## 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.

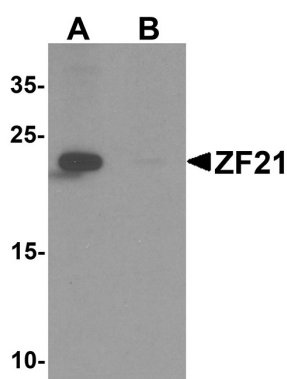
## References

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.

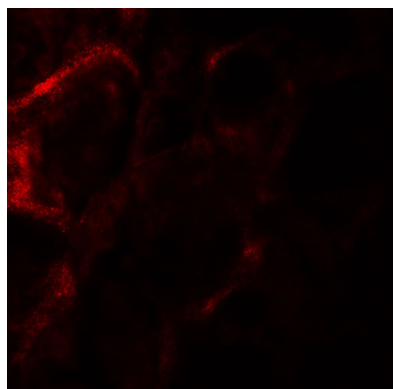
Nagano M, Hoshino D, Sakamoto T, et al. ZF21 protein regulates cell adhesion and motility. *J. Biol. Chem.* 2010; 285:21013-22.

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.

## Images



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



Immunofluorescence of ZF21 in human kidney tissue with ZF21 antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.