

## **PEF1 Antibody**

Rabbit mAb Catalog # AP92916

## **Specification**

## **PEF1 Antibody - Product Information**

Application WB
Primary Accession Q9UBV8
Reactivity Rat
Clonality Monoclonal

Clonality
Other Names

ABP32; PEF; pef1; PEF1A; Peflin;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 30381 Da

# **PEF1 Antibody - Additional Information**

Dilution WB~~1:1000

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

PEF1

Description Calcium-binding protein that acts as an

adapter that bridges unrelated proteins or stabilizes weak protein-protein complexes in response to calcium. Together with PDCD6, acts as calcium-dependent adapter

for the BCR(KLHL12) complex, a complex

involved in endoplasmic reticulum

(ER)-Golgi transport by regulating the size

of COPII coats (PubMed:27716508).

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline ,

pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid

freeze / thaw cycle.

### **PEF1 Antibody - Protein Information**

Name PEF1 (HGNC:30009)

Synonyms ABP32

#### **Function**

Calcium-binding protein that acts as an adapter that bridges unrelated proteins or stabilizes weak protein-protein complexes in response to calcium. Together with PDCD6, acts as a calcium-dependent adapter for the BCR(KLHL12) complex, a complex involved in endoplasmic reticulum (ER)-Golgi transport by regulating the size of COPII coats (PubMed:<a



href="http://www.uniprot.org/citations/27716508" target="\_blank">27716508</a>). In response to cytosolic calcium increase, the heterodimer formed with PDCD6 interacts with, and bridges together the BCR(KLHL12) complex and SEC31 (SEC31A or SEC31B), promoting monoubiquitination of SEC31 and subsequent collagen export, which is required for neural crest specification (PubMed:<a href="http://www.uniprot.org/citations/27716508" target="\_blank">27716508" target="\_blank">27716508</a>). Its role in the heterodimer formed with PDCD6 is however unclear: some evidence shows that PEF1 and PDCD6 work together and promote association between PDCD6 and SEC31 in presence of calcium (PubMed:<a href="http://www.uniprot.org/citations/27716508" target="\_blank">27716508</a>). Other reports show that PEF1 dissociates from PDCD6 in presence of calcium, and may act as a negative regulator of PDCD6 (PubMed:<a href="http://www.uniprot.org/citations/11278427" target="\_blank">11278427</a>). Also acts as a negative regulator of ER-Golgi transport; possibly by inhibiting interaction between PDCD6 and SEC31 (By similarity).

#### **Cellular Location**

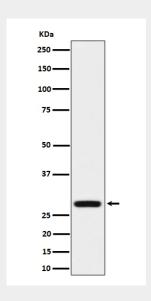
Cytoplasm. Endoplasmic reticulum {ECO:0000250|UniProtKB:Q641Z8}. Membrane; Peripheral membrane protein. Cytoplasmic vesicle, COPII-coated vesicle membrane; Peripheral membrane protein. Note=Membrane-associated in the presence of Ca(2+) (PubMed:11278427). Localizes to endoplasmic reticulum exit site (ERES) (By similarity). {ECO:0000250|UniProtKB:Q641Z8, ECO:0000269|PubMed:11278427}

## **PEF1 Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## **PEF1 Antibody - Images**



Western blot analysis of PEF1 expression in HeLa cell lysate.