

PEF1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5584

Specification

PEF1 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O9UBV8
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=30;M=29;R=30 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

PEF1 Antibody (Center) - Additional Information

Gene ID 553115

Antigen Region
95-121

Other Names

Peflin, PEF protein with a long N-terminal hydrophobic domain, Penta-EF hand domain-containing protein 1, PEF1, ABP32

Dilution

WB~~1:1000

Target/Specificity

This PEF1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 95-121 amino acids from the Central region of human PEF1.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PEF1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

PEF1 Antibody (Center) - 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:27716508). 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:27716508). 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:27716508). Other reports show that PEF1 dissociates from PDCD6 in presence of calcium, and may act as a negative regulator of PDCD6 (PubMed:11278427). Also acts as a negative regulator of ER-Golgi transport; possibly by inhibiting interaction between PDCD6 and SEC31 (By similarity).

Cellular Location

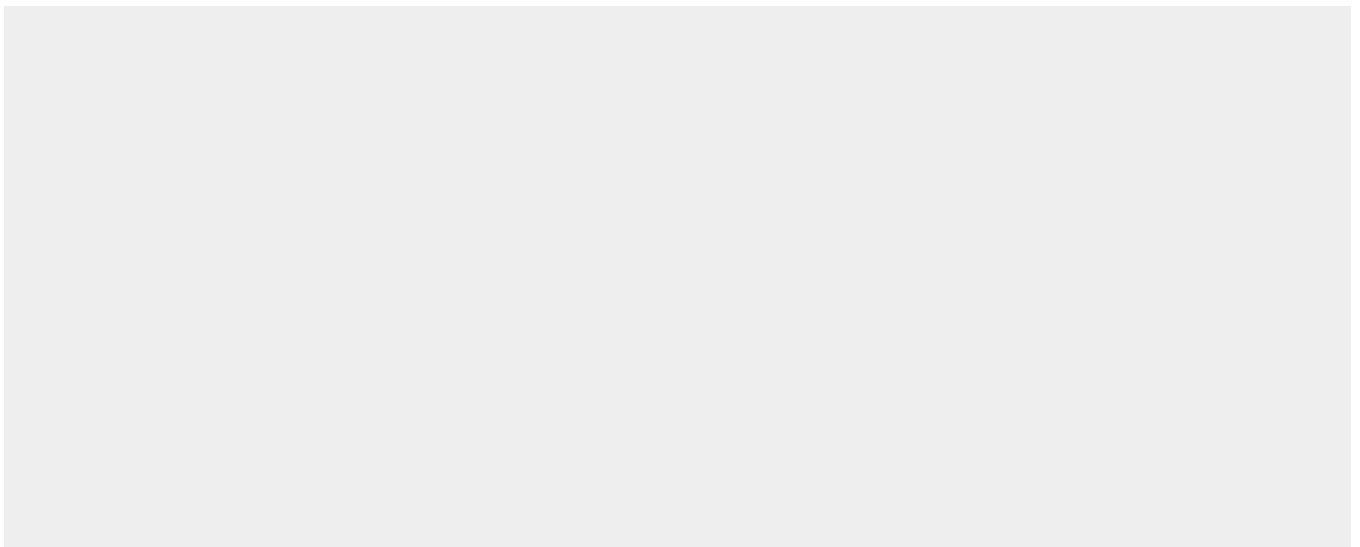
Cytoplasm. Endoplasmic reticulum {ECO:0000250|UniProtKB:Q641Z8}. Membrane; Peripheral membrane protein. Cytoplasmic vesicle, COPII-coated vesicle membrane; Peripheral membrane protein. Note=Membrane-associated in the presence of Ca(2+) (PubMed:11278427). Localizes to endoplasmic reticulum exit site (ERES)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

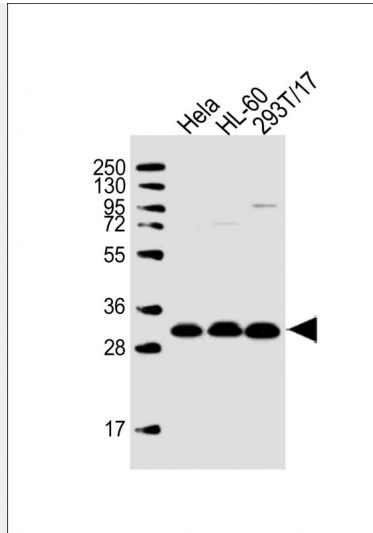
PEF1 Antibody (Center) - Protocols

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](#)

PEF1 Antibody (Center) - Images





All lanes : Anti-PEF1 Antibody (Center) at 1:1000 dilution Lane 1: HeLa whole cell lysate Lane 2: HL-60 whole cell lysate Lane 3: 293T/17 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 30 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

PEF1 Antibody (Center) - Background

This gene encodes a calcium-binding protein belonging to the penta-EF-hand protein family. The encoded protein has been shown to form a heterodimer with the programmed cell death 6 gene product and may modulate its function in Ca²⁺ signaling. Alternative splicing results in multiple transcript variants and a pseudogene has been identified on chromosome 1.

PEF1 Antibody (Center) - References

- Lamesch, P., et al. Genomics 89(3):307-315(2007)
- Hansen, C., et al. FEBS Lett. 545 (2-3), 151-154 (2003) :
- Satoh, H., et al. Biochim. Biophys. Acta 1600 (1-2), 61-67 (2002) :
- Kitaura, Y., et al. Arch. Biochem. Biophys. 399(1):12-18(2002)
- Kitaura, Y., et al. J. Biol. Chem. 276(17):14053-14058(2001)