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KD-Validated Anti-PEF1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1674

Product Information

Application	WB, FC
Primary Accession	Q9UBV8
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB1340
Calculated MW	30381
Gene Name	PEF1
Aliases	PEF1; Penta-EF-Hand Domain Containing 1; Peflin; PEF1A; PEF Protein With A Long N-Terminal Hydrophobic Domain; ABP32; Epididymis Secretory Sperm Binding Protein; Penta-EF Hand Domain-Containing Protein 1
Immunogen	A synthesized peptide derived from human PEF1

Additional Information

Gene ID	553115
Other Names	Peflin, PEF protein with a long N-terminal hydrophobic domain, Penta-EF hand domain-containing protein 1 {ECO:0000312|HGNC:HGNC:30009}, PEF1 (HGNC:30009), ABP32

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}

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