Anti-PDIA3 / ERp57 Antibody [JM11-44]

ET1703-68

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IP, IHC-P
Molecular Wt:	Predicted band size: 57 kDa
Clone number:	JM11-44

Description: Mammals defend themselves against intracellular pathogens through presentation of cytoplasmically-derived short pathogenic peptides to the cell surface of cytotoxic T lymphocytes, which subsequently leads to cytotoxic events with respect to the affected cell. Antigen presentation is mediated by major histocompatibility complex (MHC) class I molecules, which bind and coordinate short pathogenic peptides. MHC class I molecules assemble in the endoplasmic reticulum with chaperones before binding to the transporter associated with antigen processing (TAP). ERp57, also designated GRP57, GRP58, ERp60 and ERp61, is a component of the MHC class I pathway that appears to interact with MHC class I molecules before they associate with TAP. The human ERp57 gene maps to chromosome 15q15 and encodes a 505 amino acid protein. ERp57 has two Trp-Cys-Gly-His-Cys-Lys motifs completely conserved among the mammals. ERp57 may act as a protease, a protein disulfide isomerase, a phospholipase or a combination of these.

Immunogen: Synthetic peptide within Human PDIA3 aa 175-208 / 505.

Positive control: HepG2 cell lysate, LNCaP cell lysate, human kidney tissue, human pancreas tissue, human uterus tissue.

Subcellular location: Endoplasmic reticulum lumen. Melanosome.

Database links: SwissProt: P30101 Human

Recommended Dilutions:

WB	1:1,000
IHC-P	1:50-1:200
IP	1:10-1:50

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

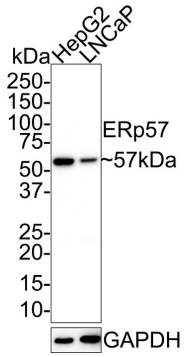

Fig1: Western blot analysis of PDIA3 / ERp57 on different lysates with Rabbit anti-PDIA3 / ERp57 antibody (ET1703-68) at 1/1,000 dilution.

Lane 1: HepG2 cell lysate
Lane 2: LNCaP cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 57 kDa
Observed band size: 57 kDa

Exposure time: 15 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1703-68) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

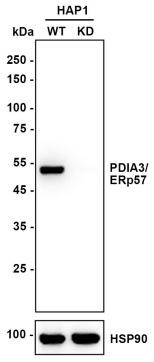

Fig2: Western blot analysis of PDIA3 / ERp57 on different lysates with Rabbit anti-PDIA3 / ERp57 antibody (ET1703-68) at 1/2,000 dilution.

Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-PDIA3 / ERp57 KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 57 kDa
Observed band size: 50 kDa

Exposure time: 21 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1703-68) at 1/2,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

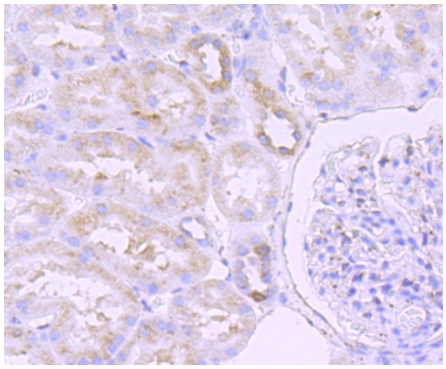

Fig3: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-ERp57 antibody. Counter stained with hematoxylin.

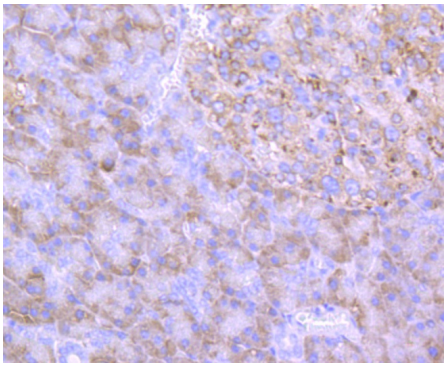

Fig4: Immunohistochemical analysis of paraffin-embedded human pancreas tissue using anti-ERp57 antibody. Counter stained with hematoxylin.

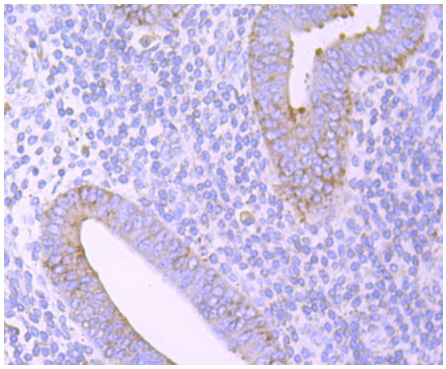

Fig5: Immunohistochemical analysis of paraffin-embedded human uterus tissue using anti-ERp57 antibody. Counter stained with hematoxylin.

Background References

1. He Y et al. Largescale Transcriptomics Analysis Suggests Over-Expression of BGH3, MMP9 and PDIA3 in Oral Squamous Cell Carcinoma. PLoS One 11:e0146530 (2016).
2. Kodavanti PR et al. Developmental exposure to a commercial PBDE mixture: effects on protein networks in the cerebellum and hippocampus of rats. Environ Health Perspect 123:428-36 (2015).