Anti-Optineurin Antibody

ER2001-02



Product Type: Rabbit polyclonal IgG, primary antibodies

Species reactivity: Human

Applications: WB, FC

Molecular Wt: 66 kDa

Description: This gene encodes the coiled-coil containing protein optineurin. Optineurin may play a role

in normal-tension glaucoma and adult-onset primary open angle glaucoma. Optineurin interacts with adenovirus E3-14.7K protein and may utilize tumor necrosis factor-alpha or Fas-ligand pathways to mediate apoptosis, inflammation or vasoconstriction. Optineurin may also function in cellular morphogenesis and membrane trafficking, vesicle trafficking, and transcription activation through its interactions with the RAB8, huntingtin, and transcription factor IIIA proteins. Alternative splicing results in multiple transcript variants encoding the

same protein.

Immunogen: Synthetic peptide within human optineurin aa 1-40.

Positive control: A431 cell lysates, human liver tissue, human kidney tissue, human placenta tissue, MCF-7.

Subcellular location: Golgi apparatus, trans-Golgi network, Recycling endosome, perinuclear region,

autophagosome, Cytoplasmic vesicle.

Database links: SwissProt: Q96CV9 Human

Recommended Dilutions:

WB 1:500-1:1,000 **FC** 1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4° C. Store at $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 °C long term.

Purity: Immunogen affinity purified.

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Images

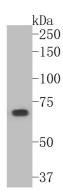


Fig1: Western blot analysis of Optineurin on A431 cell lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ER2001-02, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.

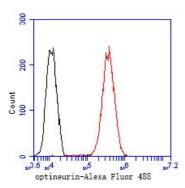


Fig2: Flow cytometric analysis of Optineurin was done on MCF-7 cells. The cells were fixed, permeabilized and stained with the primary antibody (ER2001-02, 1/50) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Structural insights into the ubiquitin recognition by OPTN (optineurin) and its regulation by TBK1-mediated phosphorylation. Li F. et. al. Autophagy. 2018
- 2. Phosphorylation of OPTN by TBK1 enhances its binding to Ub chains and promotes selective autophagy of damaged mitochondria. Richter B. et. al. Proc Natl Acad Sci U S A. 2016 Apr