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KD-Validated Anti-Optineurin Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2284

Specification

KD-Validated Anti-Optineurin Rabbit Monoclonal Antibody - Product Information

Application	**WB**
Primary Accession	Q96CV9
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 66 kDa; observed, 70 kDa KDa**
Gene Name	**OPTN**
Aliases	**OPTN; Optineurin; FIP-2; FIP2; HYPL; HIP7; NRP; TFIIIA-INTP; GLC1E; Transcription Factor IIIA-Interacting Protein; Optic Neuropathy-Inducing Protein; Huntingtin-Interacting Protein 7; Huntingtin-Interacting Protein L; E3-14.7K-Interacting Protein; Huntingtin Yeast Partner L; HIP-7; Tumor Necrosis Factor Alpha-Inducible Cellular Protein Containing Leucine Zipper Domains; Transcrption Factor IIIA-Interacting Protein; Glaucoma 1, Open Angle, E (Adult-Onset); Huntingtin Interacting Protein L; Nemo-Related Protein; NEMO-Related Protein; TFIIIA-IntP; ALS12**
Immunogen	**Recombinant protein of human Optineurin**

KD-Validated Anti-Optineurin Rabbit Monoclonal Antibody - Additional Information

Gene ID	**10133**

Other Names
Optineurin, E3-14.7K-interacting protein, FIP-2, Huntingtin yeast partner L, Huntingtin-interacting protein 7, HIP-7, Huntingtin-interacting protein L, NEMO-related protein, Optic neuropathy-inducing protein, Transcription factor IIIA-interacting protein, TFIIIA-IntP, OPTN

KD-Validated Anti-Optineurin Rabbit Monoclonal Antibody - Protein Information

Name OPTN

Function
Plays an important role in the maintenance of the Golgi complex, in membrane trafficking, in exocytosis, through its interaction with myosin VI and Rab8 (PubMed:27534431). Links myosin VI to the Golgi complex and plays an important role in Golgi ribbon formation (PubMed:27534431). Plays a role

in the activation of innate immune response during viral infection. Mechanistically, recruits TBK1 at the Golgi apparatus, promoting its trans-phosphorylation after RLR or TLR3 stimulation (PubMed:27538435). In turn, activated TBK1 phosphorylates its downstream partner IRF3 to produce IFN-beta/IFNB1. Plays a neuroprotective role in the eye and optic nerve. May act by regulating membrane trafficking and cellular morphogenesis via a complex that contains Rab8 and huntingtin (HD). Mediates the interaction of Rab8 with the probable GTPase-activating protein TBC1D17 during Rab8-mediated endocytic trafficking, such as that of transferrin receptor (TFRC/TfR); regulates Rab8 recruitment to tubules emanating from the endocytic recycling compartment (PubMed:22854040). Autophagy receptor that interacts directly with both the cargo to become degraded and an autophagy modifier of the MAP1 LC3 family; targets ubiquitin- coated bacteria (xenophagy), such as cytoplasmic Salmonella enterica, and appears to function in the same pathway as SQSTM1 and CALCOCO2/NDP52.

Cellular Location
Cytoplasm, perinuclear region. Golgi apparatus. Golgi apparatus, trans-Golgi network Cytoplasmic vesicle, autophagosome. Cytoplasmic vesicle. Recycling endosome. Note=Found in the perinuclear region and associates with the Golgi apparatus (PubMed:27534431) Colocalizes with MYO6 and RAB8 at the Golgi complex and in vesicular structures close to the plasma membrane. Localizes to LC3-positive cytoplasmic vesicles upon induction of autophagy

Tissue Location
Present in aqueous humor of the eye (at protein level). Expressed in the trabecular meshwork (at protein level) (PubMed:11834836, PubMed:12379221, PubMed:12646749). Expressed in nonpigmented ciliary epithelium (at protein level) (PubMed:11834836) Expressed at high levels in skeletal muscle, also detected in heart, brain, pancreas, kidney, placenta and liver (PubMed:9488477). Expressed in dermal fibroblasts (at protein level) (PubMed:11834836)

KD-Validated Anti-Optineurin Rabbit Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Optineurin Rabbit Monoclonal Antibody - Images

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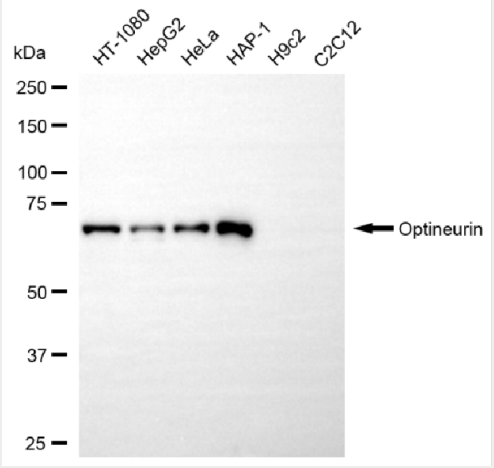
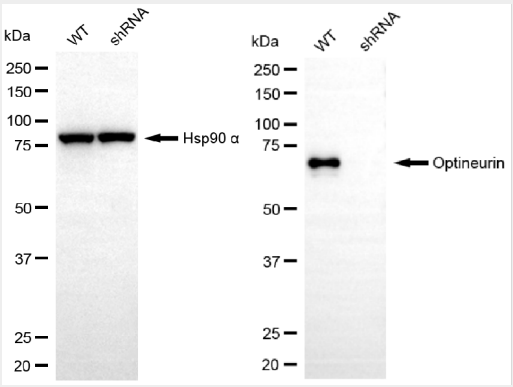


Western blotting analysis using anti-optineurin antibody (Cat#AGI2284). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-optineurin antibody (Cat#AGI2284, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-optineurin antibody (Cat#AGI2284). Optineurin expression in wild-type (WT) and optineurin (OPTN) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-optineurin antibody (Cat#AGI2284, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.