For Research Use Only

OPTN/Optineurin Polyclonal antibody

Catalog Number:10837-1-AP Featured Product 170 Publications

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Basic Information

Catalog Number:
10837-1-AP

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG1272

GenBank Accession Number:
BC013876

GeneID (NCBI):
10133

UNIPROT ID:
Q96CV9

Full Name:
optineurin

Calculated MW:
66 kDa

Observed MW:
66-70 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB: 1:5000-1:50000
IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC: 1:50-1:500
IF-P: 1:50-1:500
IF/ICC: 1:200-1:800
FC (Intra): 0.40 ug per 10^6 cells in a 100 µl suspension

Applications

Tested Applications:
WB, IHC, IF/ICC, IF-P, FC (Intra), IP, ELISA

Cited Applications:
WB, IHC, IF, IP, CoIP, ELISA

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, pig, monkey, hamster

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, mouse brain tissue, rat brain tissue, HepG2 cells, NCCIT cells

IP : HeLa cells,

IHC : human gliomas tissue,

IF-P : rat eye tissue,

IF/ICC : MCF-7 cells,

FC (Intra) : HeLa cells,

Background Information

OPTN, also named as FIP2, GLC1E, HIP7, HYPL and NRP, plays a neuroprotective role in the eye and optic nerve. It is probably part of the TNF-alpha signaling pathway that can shift the equilibrium toward induction of cell death. OPTN may act by regulating membrane trafficking and cellular morphogenesis via a complex that contains Rab8 and hungtingtin (HD). OPTN may constitute a cellular target for adenovirus E3 14.7, an inhibitor of TNF-alpha functions, thereby affecting cell death. Defects in OPTN are a cause of susceptibility to normal pressure glaucoma (NPG). OPTN mutated in adult-onset primary open angle glaucoma. It supports the protective role of OPTN in the trabecular meshwork. OPTN has 3 isoforms with MW 66,65 and 60 kDa (refer to UniProt). Catalog#10837-1-AP recognises 66 and 70-74 kDa band, and the additional 70-74 kDa band due to phosphorylation.

Notable Publications

Author	Pubmed ID	Journal	Application
Dulcemaria Hernandez	36154443	mBio	IF
Shanshan Li	33014158	Oncol Lett	WB
Liangde Zheng	31525119	Autophagy	WB

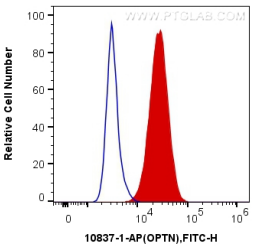
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

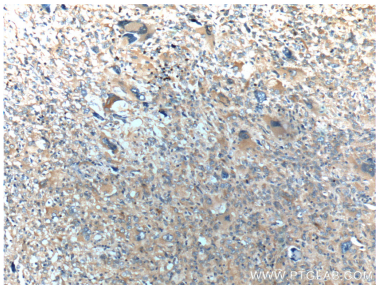
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

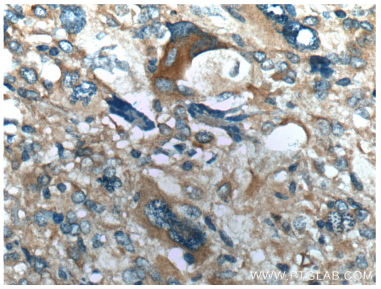
Selected Validation Data



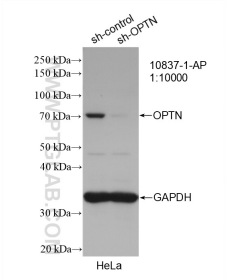
1X10^6 HeLa cells were intracellularly stained with 0.4 ug Anti-Human OPTN (10837-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer.



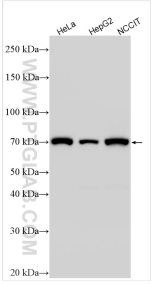
Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 10837-1-AP (OPTN Antibody) at dilution of 1:200 (under 10x lens).



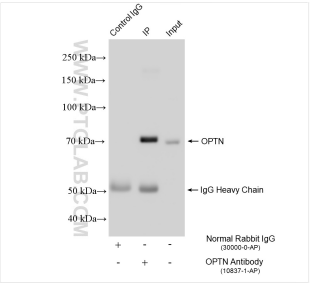
Immunohistochemical analysis of paraffin-embedded human gliomas tissue slide using 10837-1-AP (OPTN Antibody) at dilution of 1:200 (under 40x lens).



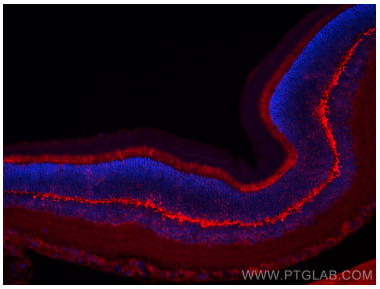
WB result of OPTN antibody (10837-1-AP; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-OPTN transfected HeLa cells.



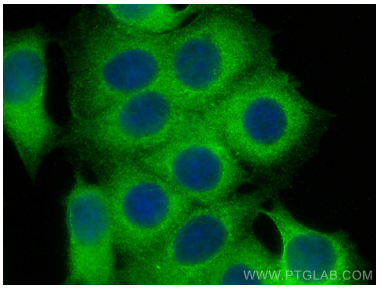
Various lysates were subjected to SDS PAGE followed by western blot with 10837-1-AP (OPTN/Optineurin antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



IP result of anti-OPTN/Optineurin (IP:10837-1-AP, 4ug; Detection:10837-1-AP 1:10000) with HeLa cells lysate 1400 ug.



Immunofluorescent analysis of (-20°C Acetone) fixed paraffin-embedded rat eye tissue using OPTN antibody (10837-1-AP) at dilution of 1:200 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed MCF-7 cells using OPTN antibody (10837-1-AP) at dilution of 1:400 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002).