For Research Use Only

WDR45/WIPI4 Polyclonal antibody

Catalog Number:19194-1-AP Featured Product 12 Publications

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Basic Information

Catalog Number:
19194-1-AP

Size:
150ul , Concentration: 450 ug/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG6741

GenBank Accession Number:
BC000464

GeneID (NCBI):
11152

UNIPROT ID:
Q9Y484

Full Name:
WD repeat domain 45

Calculated MW:
40 kDa

Observed MW:
40 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:6000
IHC 1:50-1:500
IF/ICC 1:50-1:500

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Cited Applications:
WB, IP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse

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 : mouse skeletal muscle tissue, rat skeletal muscle tissue

IHC : human liver tissue,

IF/ICC : HeLa cells,

Background Information

WD repeat domain phosphoinositide-interacting protein 4 (WDR45) is also named as WDRX1, WDRXI4 and WIPI4, and belongs to the WD repeat PROPPIN family. WDR45 is highly conserved in mammals, and the amino acid sequences of the human, mouse, pig, bovine and horse protein have more than 97% identity (PMID:20505359). WDR45 is component of the autophagy machinery that controls the major intracellular degradation process (PMID:23435086, PMID:28561066). Together with WIPI1, WIPI2 and WIPI3/WDR45B, it forms the WIPI (WD repeat domain, phosphoinositide interacting) protein family. And this is why WDR45 is also known as WIPI4 (PMID:11814058). The best characterized molecular function of WDR45 is promoting lipid transfer together with ATG2 proteins between adjacent membranes. This function at the phagophore-ER membrane contact sites is important for autophagy (PMID:30185561, PMID:31721365). WDR45 is activated by the STK11/AMPK signaling pathway upon starvation. WDR45 is involved in autophagosome assembly downstream of WIPI2, regulating the size of forming autophagosomes (PMID:28561066).

Notable Publications

Author	Pubmed ID	Journal	Application
Hye Eun Lee	34769084	Int J Mol Sci	WB
Luisa Aring	34837396	J Neurochem	WB
Alexander S Häusl	35263141	Sci Adv	WB,IP

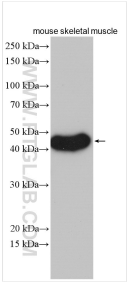
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

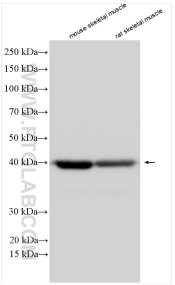
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

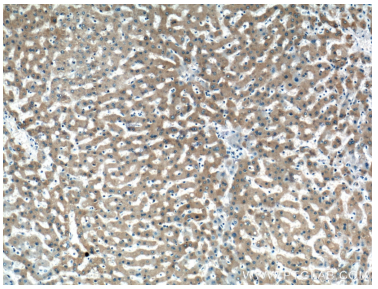
Selected Validation Data



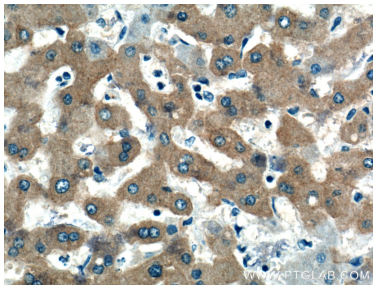
mouse skeletal muscle tissue were subjected to SDS PAGE followed by western blot with 19194-1-AP (WDR45 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



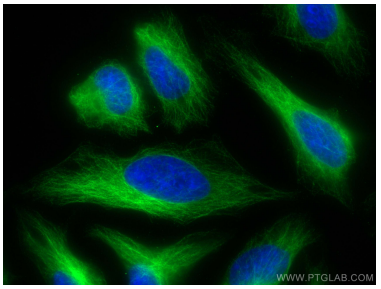
Various lysates were subjected to SDS PAGE followed by western blot with 19194-1-AP (WDR45 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 19194-1-AP (WDR45 Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 19194-1-AP (WDR45 Antibody) at dilution of 1:200 (under 40x lens).



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using WDR45/WIPI4 antibody (19194-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).