

APG12 / ATG12 Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS12695**Specification**

APG12 / ATG12 Antibody (Internal) - Product Information

Application	WB, IHC-P, IF, E
Primary Accession	O94817
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	15kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A IF~~1:50~200 E~~N/A

APG12 / ATG12 Antibody (Internal) - Additional Information**Gene ID** 9140**Other Names**

Ubiquitin-like protein ATG12, Autophagy-related protein 12, APG12-like, ATG12, APG12, APG12L

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

APG12 / ATG12 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

APG12 / ATG12 Antibody (Internal) - Protein Information**Name** ATG12 ([HGNC:588](#))**Synonyms** APG12, APG12L**Function**

Ubiquitin-like protein involved in autophagy vesicles formation. Conjugation with ATG5 through a ubiquitin-like conjugating system involving also ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes. As part of the ATG8 conjugation system with ATG5 and ATG16L1, required for recruitment of LRRK2 to stressed lysosomes and induction of LRRK2 kinase activity in response to lysosomal stress (By similarity).

Cellular Location

Cytoplasm. Preautophagosomal structure membrane; Peripheral membrane protein. Note=TECPR1

recruits the ATG12- ATG5 conjugate to the autolysosomal membrane

Tissue Location

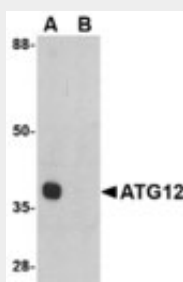
Ubiquitous..

APG12 / ATG12 Antibody (Internal) - Protocols

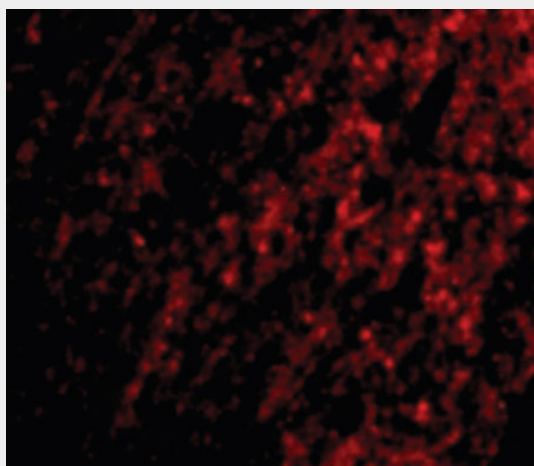
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

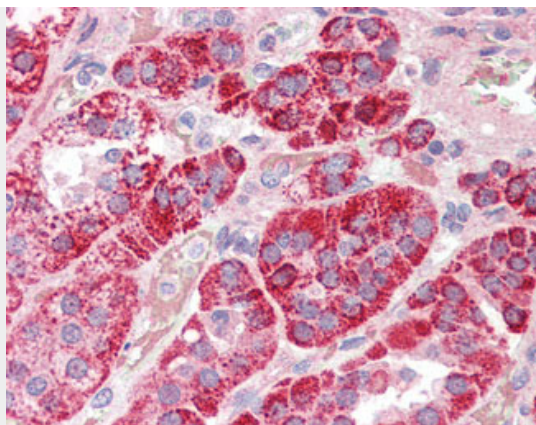
APG12 / ATG12 Antibody (Internal) - Images



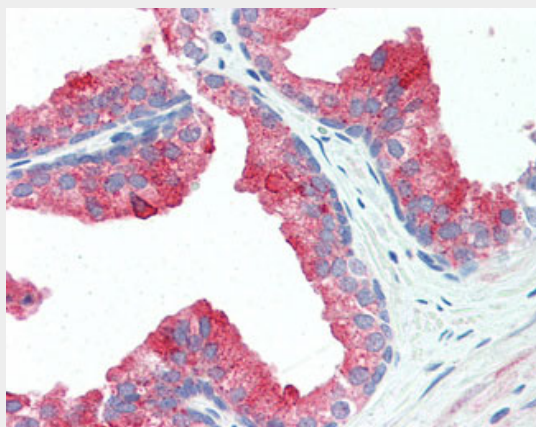
Western blot of ATG12 in mouse heart tissue lysate with ATG12 antibody at 1 ug/ml in (A) the...



Immunofluorescence of ATG12 in Human Brain cells with ATG12 antibody at 20 ug/ml.



Anti-ATG12 antibody IHC of human adrenal.



Anti-ATG12 antibody IHC of human prostate.

APG12 / ATG12 Antibody (Internal) - Background

Ubiquitin-like protein involved in autophagy vesicles formation. Conjugation with ATG5 through a ubiquitin-like conjugating system involving also ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes. The ATG12-ATG5 conjugate also regulates negatively the innate antiviral immune response by blocking the type I IFN production pathway through direct association with RARRES3 and MAVS. Plays also a role in translation or delivery of incoming viral RNA to the translation apparatus.

APG12 / ATG12 Antibody (Internal) - References

- Mizushima N.,et al.J. Biol. Chem. 273:33889-33892(1998).
- Schmütz J.,et al.Nature 431:268-274(2004).
- Tanida I.,et al.J. Biol. Chem. 276:1701-1706(2001).
- Tanida I.,et al.Biochem. Biophys. Res. Commun. 296:1164-1170(2002).
- Tanida I.,et al.J. Biol. Chem. 277:13739-13744(2002).