10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.622.0609

Ambra1 Antibody
Catalog # ASC10675

Specification

Ambra1 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q9C0C7
Other Accession	Q9C0C7, 166215833
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**Ambra1 antibody can be used for the detection of Ambra1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

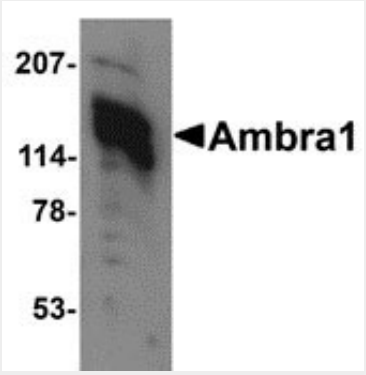
Ambra1 Antibody - Additional Information

Gene ID	**55626**
Target/Specificity	
AMBRA1;	

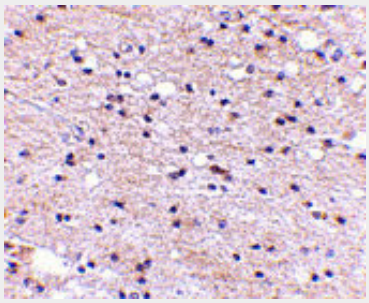
Reconstitution & Storage
Ambra1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
Ambra1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

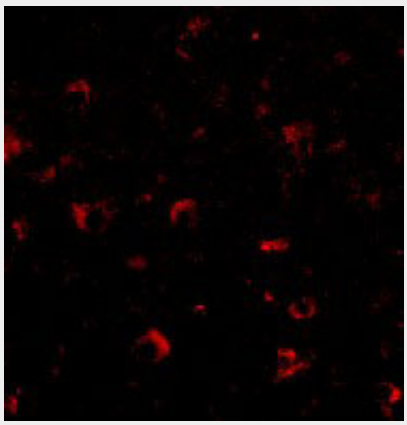
Ambra1 Antibody - Protein Information



Western blot analysis of Ambra1 in 3T3 cell lysate with Ambra1 antibody at 1 µg/mL.



Immunohistochemistry of Ambra1 in human brain with Ambra1 antibody at 5 µg/mL.



Immunofluorescence of Ambra1 in Human Brain cells with Ambra1 antibody at 20 µg/mL.

Ambra1 Antibody - Background

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Name AMBRA1

Synonyms KIAA1736

Function
Regulates autophagy and development of the nervous system. Involved in autophagy in controlling protein turnover during neuronal development, and in regulating normal cell survival and proliferation (By similarity).

Cellular Location
Cytoplasmic vesicle, autophagosome. Note=Localizes also to discrete punctae along the ciliary axoneme

Ambra1 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

Ambra1 Antibody: Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components. Beclin-1, a principal regulator of autophagosome formation, is in turn regulated by Ambra1. Ambra1 associates with Beclin-1 through a region near its center as determined by yeast two-hybrid assay. Null mutations in this gene in mice resulted in embryonic lethality with severe neural tube defects associated with autophagy impairment, accumulation of ubiquitinated proteins, unbalanced cell proliferation and excessive apoptotic death. Furthermore, down-regulation of Ambra1 in cultured cells though RNA interference decreased the level of rapamycin- and nutrient starvation-induced autophagy. Multiple isoforms of Ambra1 are known to exist.

Ambra1 Antibody - References

Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. Oncogene2004; 23:2891-906.
Kisen GO, Tessitore L, Costelli P, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. Carcinogenesis1993; 14:2501-5.
Liang XH, Jackson S, Seaman M, et al. Induction of autophagy and inhibition of tumorigenesis by beclin 1. Nature1999; 402:672-6.
Fimia GM, Stoykova A, Romagnoli A, et al. Ambra1 regulates autophagy and development of the nervous system. Nature2007; 447:1121-5.