

## Anti-Ambra1 Antibody

Catalog Number: A03799

### Introduction

CD3epsilon is a 20kD chain, which together with CD3lambda, CD3delta, and CD3zeta, and a T cell receptor (alpha/beta or gamma/delta) form the CD3/T-cell receptor complex. It is a specific marker for T lymphocytes, NK T cells, and some thymocytes. Crosslinking of TCR initiates an intracellular signaling cascade resulting in cellular activation and proliferation. The OKT3 antibody has been reported to have potent immunosuppressive properties in vivo and has been proved effective in the treatment of renal, heart, and liver allograft rejection.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development or are reported in the literature.

### Application Information

Each lot of this antibody has been quality control tested by flow cytometric analysis of human PBMCs. For flow cytometric staining, the recommended use of this antibody is  $\leq 0.5\mu\text{g}$  per  $1 \times 10^6$  cells in  $100\mu\text{l}$  of staining volume followed by a secondary fluorescent conjugated anti-mouse antibody. However, it is strongly suggested that the antibody reactivity be empirically titrated for optimal performance in the application of interest.

### About AMBRA1

Autophagy, the process of bulk degradation of cellular proteins through an autophagosomal-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 through RNA interference decreased the level of rapamycin- and nutrient starvation-induced autophagy. Multiple isoforms of Ambra1 are known to exist.

### Overview

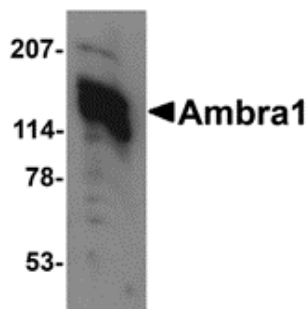
Product Name	Anti-Ambra1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Ambra1 Antibody (Catalog # A03799). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Conjugate	Biotin
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal SK7
Formulation	Ambra1 Antibody is supplied in PBS containing 0.02% sodium azide.

Storage Instructions	Ambra1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	Q9C0C7

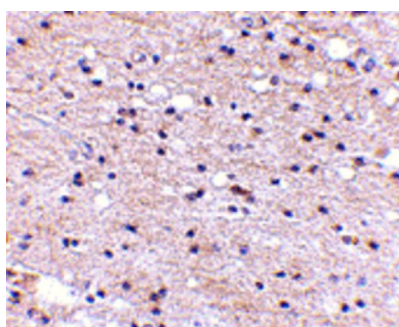
## Technical Details

Immunogen	Ambra1 antibody was raised against a 15 amino acid synthetic peptide from near the carboxy terminus of human Ambra1. The immunogen is located within the last 50 amino acids of Ambra1.
Predicted Reactive Species	Bovine, Chicken, Rat
Cross Reactivity	KIR2DS2 antibody is human specific. Multiple isoforms are known to exist.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	Ambra1 Antibody is affinity chromatography purified via peptide column.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Ambra1 antibody can be used for the detection of Ambra1 by Western blot at 1 ug/mL. Antibody can also be used for immunohistochemistry starting at 5 ug/mL. For immunofluorescence start at 20 ug/mL.</p> <p>Antibody validated: Western Blot in mouse samples; Immunohistochemistry in human samples and Immunofluorescence in human samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.</p>

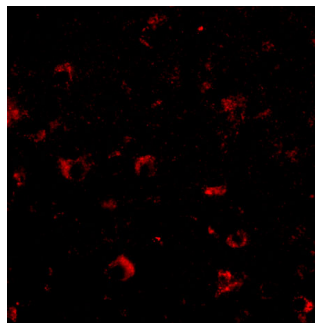
## Anti-Ambra1 Antibody (A03799) Images



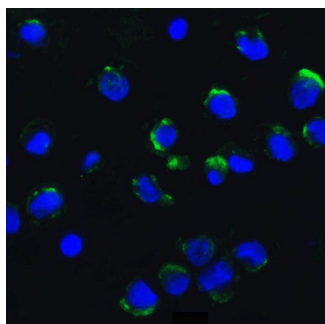
Western blot analysis of Ambra1 in 3T3 cell lysate with Ambra1 antibody at 1 ug/mL.



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



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



Immunofluorescence of Ambra1 in K562 cells with Ambra1 Antibody at 20 ug/ml.

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