# ARG54921
# anti-BACE1 antibody

Package: 50 µg
Store at: -20°C

## Summary

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|---|---|
| Product Description | Rabbit Polyclonal antibody recognizes BACE1 |
| Tested Reactivity | Hu, Ms |
| Tested Application | ELISA, ICC/IF, IHC-P, WB |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | BACE1 |
| Species | Human |
| Immunogen | Syntehtic peptide (17 aa) within the last 50 aa of Human BACE. |
| Conjugation | Un-conjugated |
| Alternate Names | Beta-site APP cleaving enzyme 1; BACE; Beta-secretase 1; Membrane-associated aspartic protease 2; HSPC104; Memapsin-2; ASP2; Asp 2; EC 3.4.23.46; Aspartyl protease 2; Beta-site amyloid precursor protein cleaving enzyme 1 |

## Application Instructions

Application table

| Application | Dilution |
|---|---|
| ELISA | Assay-dependent |
| ICC/IF | 10 µg/ml |
| IHC-P | 2.5 µg/ml |
| WB | 1 µg/ml |

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Positive Control: Human Brain Tissue Lysate

## Properties

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| Form | Liquid |
| Purification | Purified by affinity chromatography. |
| Buffer | PBS and 0.02% Sodium azide |
| Preservative | 0.02% Sodium azide |
| Concentration | 1 mg/ml |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed |

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|---|---|
| | before use. |
| Note | For laboratory research only, not for drug, diagnostic or other use. |

## Bioinformation

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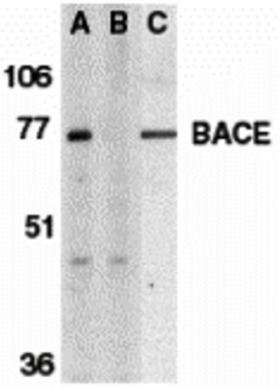
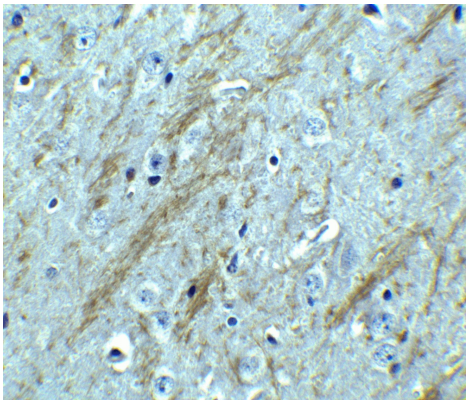
|---|---|
| Database links | GeneID: 23621 Human<br>GeneID: 23821 Mouse<br>Swiss-port # P56817 Human<br>Swiss-port # P56818 Mouse |
| Gene Symbol | BACE1 |
| Gene Full Name | beta-site APP-cleaving enzyme 1 |
| Background | BACE Antibody: Accumulation of the amyloid-beta (Abeta) plaque in the cerebral cortex is a critical event in the pathogenesis of Alzheimer's disease. Abeta peptide is generated by proteolytic cleavage of the beta-amyloid protein precursor (APP) at beta- and gamma-sites by two proteases. APP is first cleaved by beta-secretase, producing a soluble derivative of the protein and a membrane anchored 99-amino acid carboxy-terminal fragment (C99). The C99 fragment serves as substrate for gamma-secretase to generate the 4 kDa amyloid-beta peptide, which is deposited in the brains of all suffers of Alzheimer's disease. The long-sought beta-secretase was recently identified by several groups independently and designated beta-site APP cleaving enzyme (BACE) and aspartyl protease 2 (Asp2). BACE/Asp2 is a novel transmembrane aspartic protease and colocalizes with APP. |
| Function | Responsible for the proteolytic processing of the amyloid precursor protein (APP). Cleaves at the N-terminus of the A-beta peptide sequence, between residues 671 and 672 of APP, leads to the generation and extracellular release of beta-cleaved soluble APP, and a corresponding cell-associated C-terminal fragment which is later released by gamma-secretase. [UniProt] |
| Highlight | Related products:<br>BACE1 antibodies; Anti-Rabbit IgG secondary antibodies;<br>Related news:<br>Beta-amyloid Peptide, the Dr Jekyll and Mr Hyde of Alzheimer's Disease |
| Research Area | Cell Biology and Cellular Response antibody; Neuroscience antibody |
| Calculated Mw | 56 kDa |
| PTM | N-Glycosylated.<br>Acetylated in the endoplasmic reticulum at Lys-126, Lys-275, Lys-279, Lys-285, Lys-299, Lys-300 and Lys-307. Acetylation by NAT8 and NAT8B is transient and deacetylation probably occurs in the Golgi. Acetylation regulates the maturation, the transport to the plasma membrane, the stability and the expression of the protein.<br>Palmitoylation mediates lipid raft localization. |

## Images



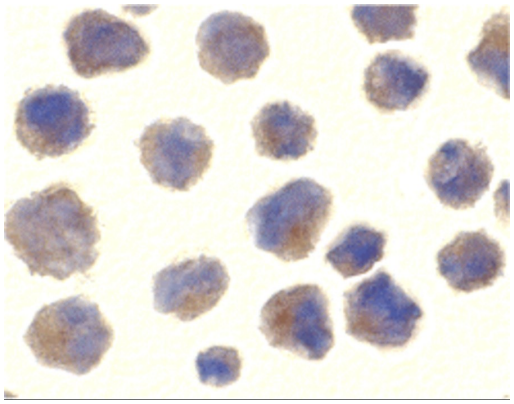

ARG54921 anti-BACE1 antibody WB image

Western blot: human brain tissue lysate in the absence (A) or presence (B) of blocking peptide and in mouse 3T3 cell lysate (C) stained with ARG54921 anti-BACE1 antibody at 1 ug/ml dilution.



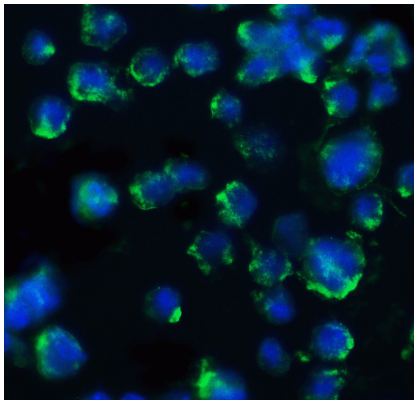
ARG54921 anti-BACE1 antibody IHC-P image

Immunohistochemistry: Mouse Brain stained with ARG54921 anti-BACE1 antibody at 2.5 µg/ml dilution.



ARG54921 anti-BACE1 antibody ICC/IF image

Immunocytochemistry: 3T3 cells stained with ARG54921 anti-BACE1 antibody at 10 ug/ml dilution.



ARG54921 anti-BACE1 antibody ICC/IF image

Immunocytochemistry: 3T3/NIH cells stained with ARG54921 anti-BACE1 antibody at 10 ug/ml dilution.