

# APP (Amyloid Precursor Protein) Monoclonal Antibody (22C11), Biotin, eBioscience™

| Product Details             |   |
|-----------------------------|---|
| Size                        | 100 µg  |
| Species Reactivity          | Human, Mouse, Rat   |
| Host/Isotype                | Mouse / IgG1, kappa   |
| Recommended Isotype Control | Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Biotin, eBioscience™ |
| Class                       | Monoclonal  |
| Type                        | Antibody  |
| Clone                       | 22C11   |
| Conjugate                   | Biotin  |
| Form                        | Liquid  |
| Concentration               | 0.5 mg/mL   |
| Purification                | Affinity chromatography   |
| Storage buffer              | PBS, pH 7.2   |
| Contains                    | 0.09% sodium azide  |
| Storage conditions          | 4° C, store in dark, DO NOT FREEZE!                                 |
| RRID                        | AB_2572821  |

| Applications                 | Tested Dilution | Publications   |
|------------------------------|-----------------|----------------|
| Western Blot (WB)            | -               | 3 Publications |
| Immunohistochemistry (IHC)   | Assay-Dependent | 2 Publications |
| Immunocytochemistry (ICC/IF) | 5 µg/mL         | -              |

## Product Specific Information

Description: The monoclonal antibody 22C11 recognizes human, mouse, and rat APP (Amyloid Precursor Protein). APP is expressed in high abundance in the central nervous system and has three major isoforms resulting from alternative splicing. APP plays a role in synaptic formation and repair, anterograde neuronal transport, iron export, and hormonal regulation. Secreted APP (sAPP) may have neuroprotective effects against neurotoxic insult, oxidative stress, and excitotoxicity. APP belongs to a family that contains at least two homologs, amyloid precursor-like proteins 1 and 2 (APLP1 and APLP2). Similarities between APP and APLP, especially APLP2, suggest that APLP could share and compensate for the function of APP. Proteolytic cleavage of APP results in the generation of beta amyloid, which is the primary component of senile plaques. Senile plaques are one of the major histopathologic features of Alzheimer's disease. Abnormal regulation and processing of APP also plays a role in Down's syndrome, early onset familial Alzheimer's disease, cerebral hemorrhage, and arthritis.

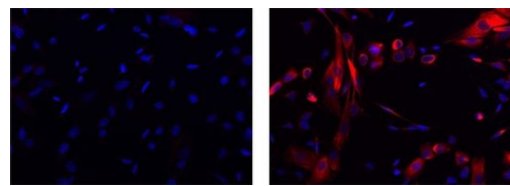
This 22C11 antibody reacts with pre-A4 and recognizes all three isoforms of APP (immature, sAPP, and mature). This 22C11 antibody is known to cross react with APLP2.

Applications Reported: This 22C11 antibody has been reported for use in microscopy, and immunocytochemistry.

Applications Tested: This 22C11 antibody has been tested by immunocytochemistry of methanol-fixed cells and can be used at less than or equal to 5 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Filtration: 0.2 µm post-manufacturing filtered.

**Product Images For APP (Amyloid Precursor Protein) Monoclonal Antibody (22C11), Biotin, eBioscience™**



**APP (Amyloid Precursor Protein) Antibody (13-9749-82) in ICC/IF**  
Immunofluorescent analysis of MeOH-fixed SK-N-SH cells using 5 µg/mL of Mouse IgG1 K Isotype Control Biotin (left) or 5 µg/mL of Anti-APP (Amyloid Precursor Protein) Biotin (right) followed by Streptavidin eFluor® 570. Nuclei are stained with DAPI.

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## Western Blot (3)

|   |                                |
|---|--------------------------------|
| <p><b>Aging cell</b></p> <p><b>microRNA-425 loss mediates amyloid plaque microenvironment heterogeneity and promotes neurodegenerative pathologies.</b></p> <p>"Published figure using APP (Amyloid Precursor Protein) monoclonal antibody (Product # 13-9749-82) in Immunocytochemistry"</p> <p>Authors: Hu YB,Zhang YF,Ren RJ,Dammer EB,Xie XY,Chen SW,Huang Q,Huang WY,Zhang R,Chen HZ,Wang H, Wang G</p>                                  | <p><b>Year</b></p> <p>2021</p> |
| <p><b>The Journal of experimental medicine</b></p> <p><b>GSAP regulates lipid homeostasis and mitochondrial function associated with Alzheimer's disease.</b></p> <p>"Published figure using APP (Amyloid Precursor Protein) monoclonal antibody (Product # 13-9749-82) in Western Blot"</p> <p>Authors: Xu P,Chang JC,Zhou X,Wang W,Bamkole M,Wong E,Bettayeb K,Jiang LL,Huang T,Luo W,Xu H,Nairn AC, Flajolet M,Ip NY,Li YM,Greengard P</p> | <p><b>Year</b></p> <p>2021</p> |

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## Immunohistochemistry (2)

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|--|--------------------------------|
| <p><b>International journal of molecular sciences</b></p> <p><b>Beta-Site Amyloid Precursor Protein-Cleaving Enzyme Inhibition Partly Restores Sevoflurane-Induced Deficits on Synaptic Plasticity and Spine Loss.</b></p> <p>"Published figure using APP (Amyloid Precursor Protein) monoclonal antibody (Product # 13-9749-82) in Immunohistochemistry"</p> <p>Authors: Wang X,Shi Q,Pradhan AK,Ziegon L,Schlegel M,Rammes G</p> | <p><b>Year</b></p> <p>2022</p> |
| <p><b>Aging cell</b></p> <p><b>microRNA-425 loss mediates amyloid plaque microenvironment heterogeneity and promotes neurodegenerative pathologies.</b></p> <p>"Published figure using APP (Amyloid Precursor Protein) monoclonal antibody (Product # 13-9749-82) in Immunocytochemistry"</p> <p>Authors: Hu YB,Zhang YF,Ren RJ,Dammer EB,Xie XY,Chen SW,Huang Q,Huang WY,Zhang R,Chen HZ,Wang H, Wang G</p>                       | <p><b>Year</b></p> <p>2021</p> |

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