

**Anti-APP (Phosphorylated) Rabbit IgG Affinity Purify****Polyclonal Antibody****Cat.NO.: PA01060**

3th Edition

**Description:** Amyloid precursor protein (APP) is precursor protein of Amyloid  $\beta$  which is major constituent of senile plaque in Alzheimer's disease. It is known that there are three major isoforms, APP695, APP751 and APP770, and are generated from alternative splicing of common precursor mRNA (ref.1). Processing of APP occurs by two major pathways, non-amyloidogenic pathway and amyloidogenic pathway. The non-amyloidogenic pathway is mediated by  $\alpha$ - and  $\gamma$ -secretases and gives rise to a large fragment known as soluble APP $\beta$  (sAPP $\beta$ ) and a small 3 kDa peptide known as p3. On the other hand, the Amyloidogenic pathway is mediated by  $\beta$ - and  $\gamma$ -secretases and yields soluble APP $\beta$  (sAPP $\beta$ ) and Amyloid  $\beta$ . APP is expressed at many of tissue within an organism. It is supposed that the function of APP in neuron system is different from that in other organ. In nerve cells, APP containing an N- or O-type sugar chain modification (mature APP) is phosphorylated at the Thr668 position (APP695) by the actions of Cdk5 and c-Jun NH2-terminal kinase (JNK), which are nerve-specifically activated, and becomes translocated to the cell membrane and neuritis (ref. 2-4). It has been considered that the phosphorylation induces structural changes in the cytoplasmic domain of APP and influences A $\beta$  production (ref.5-6). Regulation of the bonding of APP with FE65 is believed to be involved in information transmission (ref. 6).

**Antigen:** Synthetic peptide of Phosphorylated part of APP (DAAVpTPEE)

**Form:** Lyophilized product from 1% BSA in PBS containing 0.05% NaN<sub>3</sub>

**How to use:** 1.0 ml distilled water will be added to the product

**Stability:** Lyophilized product, 5 years at 2 – 8°C; Solution, 2 years at –20°C

**Dilution:** PBS (pH7.4) containing 1% BSA

**Application:** This antibody can be used for western blotting in concentration of 1  $\mu$ g/ml.

**Specificity:** Reacts with human and mouse, and not reacts with nonphosphorylated APP.