Anti-Activated Caspase 3 (p20/p17 subunit) antibody, rabbit serum (ACP3)
# 74-102  100ul

Caspases are a family of cysteine proteases which play essential roles in apoptosis. Among them, Caspase 3 is a frequently activated death protease, catalyzing the specific cleavage of many key cellular proteins. Caspase 3 is synthesized as an inactive 32 kDa pro-enzyme which undergo proteolytic processing in response to apoptotic stimulation to produce the active form which consists of the p20/p17, and p12 subunits. Caspase 3 is the predominant caspase involved in the cleavage of Alzheimer amyloid precursor protein (APP), which is associated with neuronal death in Alzheimer’s disease. An antibody (named ACP3) against activated caspase 3 was raised in rabbit. This antibody recognizes the active form of human caspase 3, p20/p17 subunit but does not recognize the proenzyme p32 (ref. 5).

Applications
1. Western blot (dilution: 1/3,000 - 1/1,000)
2. Immunocytochemistry (dilution: 1/1,000 - 1/500)
3. ELISA
These applications were confirmed in the laboratory of Prof. K, Yoshikawa of Osaka University (ref. 3).

Specification
Immunogen: Synthetic peptide corresponding to the caspase 3 cleavage site, 6 aa (CGIETD)
Specificity: Specific to the activated caspase 3 of human, mouse and rat. The antibody does not react with the proenzyme p32.
Form: Antiserum with 0.05% sodium azide
Storage: Shipped at 4°C and store at -20°C

Data Link: UniProtKB/Swiss-Prot P42574 (CASP3_HUMAN)

References: This antibody was used in ref. 3 and 4.
Fig. 1 Immunocytochemistry for APP, chromosomal DNA, and activated caspase 3 subunits: Caspase 3 activation in neurons accumulating wild-type APP (ref. 3). NT2 neurons (neurally differentiated human NT2 embryonic carcinoma cells) were infected with adenovirus vector expressing β-galactosidase (upper panel) or APP (lower panel), fixed 48 h later, and triply stained for the N-terminus of APP (with antibody P2-1) or β-gal (with antibody against β-gal), chromosomal DNA (Hoechst), and activated caspase 3 subunits (with antibody ACP3). Some neurons accumulating APP are strongly immunostained with ACP3 (arrows), whereas neurons accumulating β-gal are hardly labeled (arrowheads).

Related products:
# 74-104 anti-APP (C-terminus) antibody
# 74-106 anti-APP (N-terminus) antibody
# 74-108 anti-APP (C-terminus of the caspase3-cleaved APP) antibody
# 74-110 anti-APPΔ31 (specific to C-terminal APPΔ31) antibody