

20-1045: Polyclonal antibody to Caspase-9

Clonality :	Polyclonal
Application :	IP,IHC,WB
Reactivity :	Dog,Rat,Mouse,Human
Gene :	CASP9
Gene ID :	842
Uniprot ID :	P55211
Format :	Sera
Alternative Name :	CASP9,MCH6
Isotype :	Rabbit IgG
Immunogen Information :	A full-length recombinant protein of human Caspase-9 was used as the immunogen for this antibody

Description

Apoptosis, or programmed cell death, is a common property of all multicellular organisms. The current dogma of apoptosis suggests that the components of the core cell-death machinery are integral to cells and widely conserved across species. Caspases, a family of cysteinyl aspartate-specific proteases, are integral components of the cell death machinery (reviewed in Siegal, 2006; and Lavrik et al, 2005). They play a central role in the initiation and execution of apoptotic cell death and in inflammation. Caspases are typically divided into 3 major groups, depending on the structure of their prodomain and their function. Group I: inflammatory caspases (caspases 1, 4, 5, 11, 12, 14). Group II: initiator of apoptosis caspases (caspases 2, 8, 9). Group III: effector caspases (caspases 3, 6, 7). Caspases are synthesized as zymogens (inactive pro enzyme precursors which require a biochemical change to become active enzymes) with an N-terminal prodomain of variable length followed by a large subunit (p20) and a small subunit (p10). Caspases are activated through proteolytic cleavage at specific asparagine residues that are located within the prodomain, the p10, and p20 subunits. Activation results in the generation of mature active caspases that consist of the heterotetramer p20₂-p10₂. Active caspases mediate cell death and inflammation through cleavage of particular cellular substrates that are involved in these processes. The Caspase-9 polyclonal antisera recognizes the pro form of caspase-9 (approx. 50 kDa), and the large (approx. 35 kDa) and small (approx. 15 kDa) subunits of active/cleaved Caspase-9.

Product Info

Amount :	50 µl
Content :	50 µl sera
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

WB: 1:1000-1:2000, IHC (paraffin): 1:1000-1:5000, IHC (frozen): Users should optimize, IP: 1:50-1:200

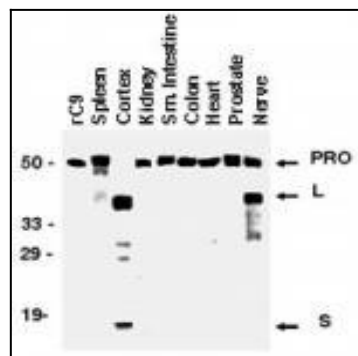


Fig:1 Western blot analysis of Caspase-9. Various tissue lysates were prepared from human autopsy material and normalized for total protein. Most tissues contained the ~50 kDa pro-Caspase-9 protein. Cleaved Caspase-9 was identified in brain cortex and peripheral nerve tissue samples. Pro-C9: recombinant human pro-Caspase-9 (full-length) protein. PRO: pro-Caspase-9. L: large subunit of cleaved Caspase-9. S: small subunit of cleaved Caspase-9.

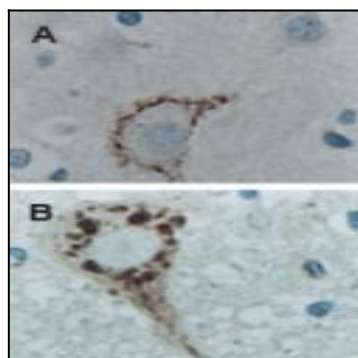


Fig:2 Immunohistochemical analysis of Caspase-9 expression in formalin-fixed, paraffin-embedded mouse brain tissue sections using 20-1045 at 1:2000. Hematoxylin-eosin counterstain. A: Brain striatum. B: Brain stem motor neuron.