

20-1111: Polyclonal antibody to Caspase-8

Clonality :	Polyclonal
Application :	IP,IHC,WB
Reactivity :	Rat,Mouse,Human
Gene :	CASP8
Gene ID :	841
Uniprot ID :	Q14790
Format :	Sera
Alternative Name :	Apoptotic cysteine protease, Apoptotic protease Mch-5, CAP4, FADD-homologous ICE/ced-3-like protease, FADD-like ICE, ICE-like apoptotic protease 5, MORT1-associated ced-3 homolog, MCH5
Isotype :	Rabbit IgG
Immunogen Information :	A peptide sequence of the C-terminus of human Caspase-8 (PQPTFTLRKKLVFSPD) was used as 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 constitutively expressed in almost all cell types as inactive proenzymes (zymogens: enzyme precursors which require a biochemical change to become active enzymes) that are processed and activated in response to a variety of pro-apoptotic or inflammatory stimuli. The procaspases (32-56 kDa) contain four domains: an N-terminal prodomain (2-25 kDa), a large subunit (p20: 17-21 kDa), a small subunit (p10: 10-13 kDa) and a short linker region between the large and small subunits. Caspase activation involves proteolytic processing of the proenzyme at specific aspartate residues between the domains. This results in removal of the prodomain as well as the linker region and formation of a heterodimer containing one large and one small subunit (p20-p10). The active caspase is a tetramer composed of two heterodimers (p20-p10)₂. Active caspases mediate cell death and inflammation through cleavage of particular cellular substrates that are involved in these processes. The antisera recognizes caspase-8 forms that contain the peptide immunogen sequence (PQPTFTLRKKLVFSPD).

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

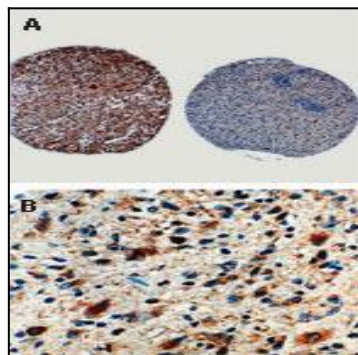


Fig:1 Formalin-fixed, paraffin-embedded sections from a brain tumor tissue array stained for Caspase-8 expression using 20-1111 at 1:2000. A. Anaplastic glioma cores from two different patients, positive (left) and negative (right) staining for caspase-8. B. Higher magnification from the caspase-8 positive (A, left) core.