



## Caspase-2 Antibody [10C6]

CATALOG NUMBER: 36-178

### Specifications

<b>SPECIES REACTIVITY:</b>	Dog, Human, Monkey, Mouse, Rat
<b>TESTED APPLICATIONS:</b>	ELISA, FACS, ICC, IHC
<b>APPLICATIONS:</b>	Flow Cytometry: (overexpressed in cell lines) . Immunocytochemistry: (10-20ug/ml; fix in 4% paraformaldehyde, 0.18% Triton-X100 for 10 min. prior to staining) . Immunohistochemistry: (frozen sections). Optimal conditions must be determined individually for each application.
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.
<b>SPECIFICITY:</b>	Recognizes an epitope in the p19 subunit of human, mouse, rat, monkey and dog caspase-2.
<b>IMMUNOGEN:</b>	Recombinant human caspase-2 (p19 subunit).
<b>HOST SPECIES:</b>	Rat

### Properties

<b>PURIFICATION:</b>	>95% (SDS-PAGE)
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	Liquid. In PBS containing 0.02% sodium azide.
<b>CONCENTRATION:</b>	1 mg/ml
<b>STORAGE CONDITIONS:</b>	Stable for at least 1 year after receipt when stored at -20°C.
<b>CLONALITY:</b>	Monoclonal
<b>ISOTYPE:</b>	IgG2a, kappa
<b>CONJUGATE:</b>	Unconjugated

### Additional Info

<b>ALTERNATE NAMES:</b>	CASP-2; Protease ICH-1; Neural Precursor Cell Expressed Developmentally Down-regulated Protein 2; NEDD-2
<b>ACCESSION NO.:</b>	P42575
<b>PROTEIN GI NO.:</b>	83300977
<b>OFFICIAL SYMBOL:</b>	CASP2
<b>GENE ID:</b>	835

### Background

<b>BACKGROUND:</b>	Caspase-2 is a Class I caspase with a long prodomain necessary for nuclear localization. Upon activation of the apoptotic pathway, the procaspase is cleaved into smaller fragments. Caspase-2 is the nuclear apoptotic respondent to cellular genotoxic stress or mitotic catastrophe and is involved in the activation cascade of caspases responsible for apoptosis execution. Activation occurs upon recruitment to a complex containing a p53-induced death domain protein, PIDD. This suggests caspase-2 can be a nuclear initiator caspase with a requirement for caspase-9 and caspase-3 activation in downstream apoptotic events. In apoptotic pathways resulting from UV-induced DNA damage, processing of caspase-2 occurs downstream of mitochondrial dysfunction and of caspase-9 and caspase-3 activation, extending a possible role for caspase-2 as a parallel effector caspase.
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