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Product Information

Anti-FLIP, N-Terminal
produced in rabbit, affinity isolated antibody

Catalog Number **F9800**

Synonyms: Anti-Casper, Anti-I-FLICE, Anti-FLAME-1, Anti-CASH, Anti-CLARP

Product Description
Anti-FLIP, N-Terminal is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 2-18 of the N-terminal of FLICE-inhibitory protein (FLIP)[1]. This sequence is identical in all FLIP splice variants.

Anti-FLIP detects all FLIP splice variants including FLIPα, β, γ and δ by immunoblotting. FLIPα/$FLIP_L$ (55 kDa), FLIPβ (52 kDa), FLIPγ (35 kDa) and FLIPδ/$FLIP_S$ (25 kDa). The antibody reacts with human, mouse and rat FLIP.

Apoptosis plays an important role in tissue homeostasis and is related to many diseases. The death receptors induce apoptosis after triggering with ligand or agonistic antibodies.[2] The best-characterized member of the death receptor subfamily is CD95 (APO-1, Fas). Stimulation of CD95 leads to clustering of the receptor. This enables the adapter molecule FADD/MORT1[3,4] and the death protease caspase-8 (FLICE, MACH, MCH5),[5-7] to bind to the receptor via homophilic death domain and death effector domain (DED) interactions, respectively, forming the death-inducing signaling complex (DISC).[8] Recruitment of caspase-8 to the DISC leads to its proteolytic activation, which initiates a cascade of caspases, leading to apoptosis.[9]

Viral FLICE-inhibitory proteins (v-FLIPs)[1, 10,11] are composed of two death effector domains, a structure resembling the N-terminal half of caspase-8. Via DED-DED interaction, v-FLIPs are recruited to the CD95 DISC,[1] preventing caspase-8 recruitment and processing and thereby CD95-induced apoptosis.

Human FLIP was identified by different groups and termed c-FLIP,[12] CASH,[13] Casper,[14] CLARP,[15] FLAME,[16] I-FLICE,[17] MRIT[18] and Usurpin.[19] On the mRNA level, c-FLIP seems to exist as multiple splice variants, FLIPα, β, γ and δ, respectively.[20] Only two endogenous forms of the protein have been detected, $c\text{-}FLIP_{long}$ and $c\text{-}FLIP_{short}$.[13,14,19] c-FLIP is structurally similar to caspase-8, since it contains two death effector domains and a caspase-like domain. However, this domain lacks residues that are important for its catalytic activity, most notably the cysteine within the active site. The short form of c-FLIP structurally resembles v-FLIP. The role of c-FLIP in apoptosis signaling may be as a pro-apoptotic molecule[13,14,15,18] or as an anti-apoptotic molecule.[12-14,16,17,19] In addition, whether c-FLIP interacts with FADD and/or caspase-8 is not clear. Some groups have reported that c-FLIP can interact with both FADD and caspase-8,[12-14,16,18] while others could only detect an interaction between c-FLIP and caspase-8.[15,17,19]

Reagent
Supplied at a concentration of 1 mg/mL in phosphate buffered saline, containing 0.02% sodium azide.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile
Immunoblotting: the recommended concentration is 0.5-1 µg/mL

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

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