Catalog No. LF-MA0217

MONOCLONAL ANTIBODY

Anti-Apoptotic protease activating factor-1(14DE3)

Background : Apoptosis is a form of programmed cell death in multicellular organisms. Its dysfunction plays a crucial role in different human diseases, such as cancer and neurological degenerative disorders. In the process of apoptosis, a complex known as the apoptosome is formed from apoptotic protease activating factor-1 (Apaf-1), procaspase-9, and cytochrome c/dATP.

The apoptosome comprises seven molecules of Apaf-1 arranged in a symmetric, wheel-shaped structure. Apaf-1 contains an N-terminal caspase recruitment domain (CARD), which is responsible for recruiting caspase-9, a nucleotide-binding oligomerization domain (NOD), and 13 WD40 repeats, which are thought to interact with cytochrome c. Oligomerization of Apaf-1 leads to autoactivation of procaspase-9 that in turn cleaves caspase-3, ultimately causing cell death. The structure of the apoptosome thus constitutes a cellular "death wheel"

In many cell types, the apoptosome is dispensable for stress-induced apoptosis and it serves to amplify rather than initiate the caspase cascade and must be more important in certain cell types.

Composition : Hepes with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

Immunogen : Recombinant human protein purified from *E.coli* (His-Apaf-1)

Host : Mouse

Clone number : 14DE3

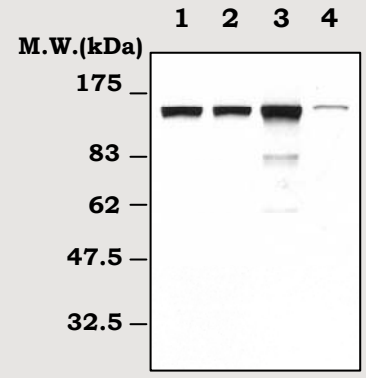
Isotype : IgG1, λ

Size : 100ul

Positive control : K562 cell lysate

Storage : Store for 1 year at -20°C from date of shipment

Species cross reactivity		
Human	**Mouse**	**Rat**
+	-	-



Immunoblot Analysis of cell lysates
Lane 1 : K562 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : 293T cell lysate
Lane 2 : MCF-7 cell lysate

Applications :
Western Blotting (1:5,000)
Immunoprecipitation(2 ㎕/400 ㎕ lysates)

Background Reference :

1) Shi Y, 2006, Curr Opin Cell Biol. 18(6):677-684.
2) Lindholm D and Arumäe U, 2004, J Cell Biol. 167(2):193-195.
3) Adams JM and Cory S, 2002, Curr Opin Cell Biol. 14(6):715-720.

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