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Product Information

Anti-CAD
produced in rabbit, affinity isolated antibody

Catalog Number **C7852**

Product Description

Anti-CAD is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 205-222 of mouse CAD (caspase-activated DNase)[1].

Anti-CAD recognizes mouse CAD by immunoblotting 40 kDa).

ICAD and CAD (in human known as DFF45 and DFF40, respectively) are two subunits that make up the heterodimeric protein caspase-activated DNase or DNA Fragmentation Factor (DFF) that triggers DNA fragmentation during apoptosis.[2]

DFF exists as an inactive cytoplasmic protein until activated by apoptotic signals. DFF45 functions as both a chaperone, mediating the correct folding of DFF40, and an inhibitor of DFF40.[3] In response to apoptotic signals, DFF45 is cleaved by caspase-3 at two sites. This releases active nuclease, DFF40.[1,4-7] DFF40 seems to oligomerize, forming a large, functional complex which breaks down DNA by introducing double-strand breaks. Furthermore, DFF40 appears to interact directly with histone H1 that may stimulate its activity.[8]

Reagents

Supplied at 0.5 mg/ml in phosphate buffered saline, 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

Antibody can be stored at 2-8 °C for three months and at −20 °C for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Product Profile

Immunoblotting: recommended working concentration is 1 μg/ml (1:500 dilution) using mouse lung tissue lysate. A 40 kDa band should be detected in non-apoptotic cells.

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

References

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RC,AK-N,PHC 08/12-1