

Technical Data Sheet

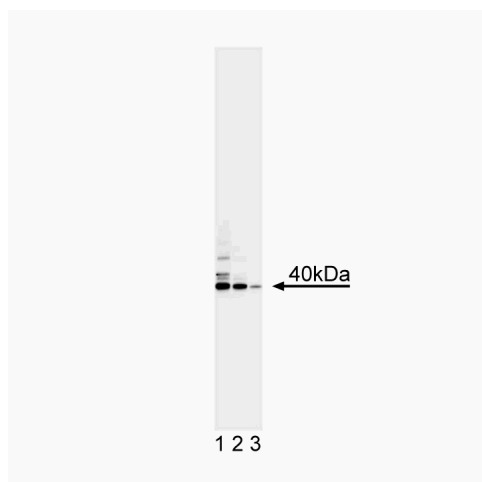
Polyclonal Rabbit Anti-DFF40/CAD

Product Information

Material Number:	550603
Size:	50 µg
Concentration:	0.5 mg/ml
Immunogen:	Human DFF40 peptide aa. 203-218
Reactivity:	QC Testing: Human Reported: Mouse, Rat
Target MW:	40 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The DNA fragmentation factor (DFF) is a complex composed of two subunits, DFF40/CAD and DFF45. DFF40/CAD is the nuclease responsible for DNA fragmentation during apoptosis. DFF45 is a molecular chaperone that inhibits the activity of DFF40/CAD. During apoptosis, activated caspase-3 cleaves DFF45 (45 kDa) into 30 and 11 kDa fragments, resulting in the release and activation of DFF40. Activated DFF40 causes DNA fragmentation which has long been considered to be a hallmark of apoptotic cell death. DFF40 migrates at approximately 40 kDa in SDS/PAGE. The antibodies recognize human, mouse, and rat DFF40/CAD. A peptide corresponding to amino acids (a.a.) 203 to 218 of human DFF40 was used as the immunogen.

**Western blot analysis of DFF40/CAD.**

A Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152) was probed with the polyclonal Rabbit Anti-DFF40/CAD antibody at 1.0 µg/mL (lane 1), 0.5 µg/mL (lane 2), and 0.25 µg/mL (lane 3). DFF40 is identified as a band of ~40 kDa.

Preparation and Storage

Store undiluted at 4°C.

The polyclonal antibody was purified from antiserum by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested
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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
554021	HRP Goat Anti-Rabbit Ig	1.0 ml	(none)
611451	Jurkat Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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References

- Enari M, Sakahira H, Yokoyama H, Okawa K, Iwamatsu A, Nagata S. A caspase-activated DNase that degrades DNA during apoptosis, and its inhibitor ICAD. *Nature*. 1998; 391(6662):43-50. (Biology)
- Liu X, Li P, Widlak P. The 40-kDa subunit of DNA fragmentation factor induces DNA fragmentation and chromatin condensation during apoptosis. *Proc Natl Acad Sci U S A*. 1998; 95(15):8461-8466. (Biology)
- Liu X, Zou H, Widlak P, Garrard W, Wang X. Activation of the apoptotic endonuclease DFF40 (caspase-activated DNase or nuclease). Oligomerization and direct interaction with histone H1. *J Biol Chem*. 1999; 274(20):13836-13840. (Immunogen)
- Mukae N, Enari M, Sakahira H, et al. Molecular cloning and characterization of human caspase-activated DNase. *Proc Natl Acad Sci U S A*. 1998; 95(16):9123-9128. (Immunogen)