



# Anti-CAD polyclonal antibody (DPAB2624RH)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Product Overview</b>	Rabbit polyclonal to human inhibitor of CAD.
<b>Antigen Description</b>	The inhibitor of caspase-3-activated DNase (ICAD) is a caspase-3 substrate that controls nuclear apoptosis. ICAD has two isoforms: a functional isoform of M.W. 45kDa, ICAD-L/DNA fragmentation factor (DFF) 45; and a M.W.35kDa isoform, ICAD-S/DFF35. Although both ICAD-L and ICAD-S can bind and inhibit CAD, only ICAD-L was reported to be functional. ICAD is cleaved to be inactivated and allow caspase-activated DNase (CAD) to execute nuclear internucleosomal apoptotic DNA fragmentation. In non-apoptotic cells, CAD is complexed with its inhibitor, ICAD. The activation of the CAD/ICAD complex occurs through the caspase 3-mediated cleavage of ICAD at residues 117 and 224, which results in three ICAD fragments that are then released from CAD. In addition to its DNase inhibitory activity, ICAD acts as a CAD-specific folding chaperone. There are recent reports that ICAD is a potential target for restoring a normal apoptotic signal transduction pathway in colon and brain cancer cells.
<b>Immunogen</b>	Synthetic peptide.
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB
<b>Positive Control</b>	HeLa cells
<b>Format</b>	HEPES with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol.
<b>Size</b>	100 µl
<b>Preservative</b>	0.03% Sodium Azide

**Storage**

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

## GENE INFORMATION

Gene Name	<a href="#">DFFA DNA fragmentation factor, 45kDa, alpha polypeptide [ Homo sapiens ]</a>
Synonyms	DFFA; DNA fragmentation factor, 45kDa, alpha polypeptide; DFF1; ICAD; DFF-45; DNA fragmentation factor subunit alpha; DFF45; inhibitor of CAD; OTTHUMP00000001903; OTTHUMP00000001904; DNA fragmentation factor 45 kDa subunit
Entrez Gene ID	<a href="#">1676</a>
Protein Refseq	<a href="#">NP_004392</a>
UniProt ID	<a href="#">O00273</a>
Chromosome Location	1p36.3-p36.2
Pathway	Activation of DNA fragmentation factor; Apoptosis; Apoptosis induced DNA fragmentation; Apoptotic execution phase; Caspase cascade in apoptosis; FAS pathway and Stress induction of HSP regulation; HIV-1 Nef: Negative effector of Fas and TNF-alpha
Function	deoxyribonuclease activity