9051 Mira Mesa Blvd, #910094
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DFFA Human

DNA Fragmentation Factor Subunit Alpha Human Recombinant
RCP0637

Product Overview

Name	DFFA Human

Description

DNA Fragmentation Factor Subunit Alpha Human Recombinant

Accession (Primary)	O00273

Synonyms

DNA fragmentation factor subunit alpha, DNA fragmentation factor 45 kDa subunit, DFF-45, Inhibitor of CAD, ICAD, DFFA, DFF1, DFF45.

Introduction

DFF is a heterodimeric protein of 40kDa (DFFB) and 45kDa (DFFA) subunits. DFFA (DNA fragmentation factor subunit alpha) is the substrate for caspase-3 and triggers DNA fragmentation during apoptosis. DFF is activated once DFFA is cleaved by caspase-3. The cleaved fragments of DFFA detach from DFFB (the active component of DFF), which in turn triggers DNA fragmentation as well as chromatin condensation during apoptosis. Apoptosis is accompanied by shrinkage and fragmentation of the cells and nuclei and degradation of the chromosomal DNA into nucleosomal units. A reduced level of DFFA detected in ovarian endometriosis may be a part of an apoptosis-resistant mechanism enhancing the disease progression. DFFA at chromosome 1 shows rare allelic variants in neuroblastoma tumors.

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered colorless solution.

Formulation

The DFFA solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 10% glycerol and 1mM DTT.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 90.0% as determined by SDS-PAGE.

Amino acid sequence

MGSSHHHHHH SSGLVPRGSH MEVTGDAGVP ESGEIRTLKP CLLRRNYSRE QHGVAASCLE DLRSKACDIL

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AIDKSLTPVT LVLAEDGTIV DDDDYFLCLP SNTKFVALAS NEKWAYNNSD GGTAWISQES FDVDETDSGA GLKWKNVARQ LKEDLSSIIL LSEEDLQMLV DAPCSDLAQE LRQSCATVQR LQHTLQQVLD QREEVRQSKQ LLQLYLQALE KEGSLLSKQE ESKAAFGEEV DAVDTGISRE TSSDVALASH ILTALREKQA PELSLSSQDL ELVTKEDPKA LAVALNWDIK KTETVQEACE WELALRLQQT QSLHSLRSIS ASKASPPGDL QNPKRARQDP T.

Precautions

DFFA Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (O00273)