

Datasheet for ABIN7317638

GADD45A Protein (GST tag,His tag)



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Overview

Quantity:	100 µg
Target:	GADD45A
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GADD45A protein is labelled with GST tag,His tag.

Product Details

Purpose:	Recombinant Human GADD45A/DDIT-1 Protein (His & GST Tag)
Sequence:	Met 1-Arg 165
Characteristics:	A DNA sequence encoding the full length of human GADD45A (P24522) (Met 1-Arg 165) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

Target Details

Target:	GADD45A
Alternative Name:	GADD45A/DDIT-1 (GADD45A Products)
Background:	Background: GADD45A is a member of the GADD45 Family, and has been found to associate with several cytoplasmic and nuclear factors and has been implicated in several cellular functions, including MAPK signaling, cell cycle regulation, DNA repair and genomic stability,

Target Details

apoptosis, and immune responses. The GADD45 Family of genes is rapidly induced by different stressors, including differentiation-inducing cytokines, and there is a large body of evidence that their cognate proteins are key players in cellular stress responses. GADD45A protein has been reported to interact with multiple important cellular proteins, including Cdc2 protein kinase, proliferating cell nuclear antigen (PCNA), p21Waf1/Cip1 protein, core histone protein and MTK/MEKK4, an up-stream activator of the JNK/SAPK pathway, indicating that GADD45A may play important roles in the control of cell cycle checkpoint, DNA repair process, and signaling transduction. GADD45A expression in response to genotoxic stress illustrates a more complex scenario, wherein transcriptional changes operate in concert with mRNA turnover and translational regulation. GADD45A was the first stress-inducible gene determined to be up-regulated by p53 and is also a target for the p53 homologues, p63 and p73. The decreased GADD45A expression is also considered a survival mechanism, as cancer cells without this control can evade the apoptotic pathway leading to increased tumourigenesis. As GADD45A is an essential component of many metabolic pathways that control proliferating cancer cells, it presents itself as an emerging drug target worthy of further investigation.

Synonym: Growth Arrest and DNA Damage-Inducible Protein GADD45 Alpha, DNA Damage-Inducible Transcript 1 Protein, DDIT-1, GADD45A, DDIT1, GADD45

Molecular Weight:	46.2 kDa
UniProt:	P24522
Pathways:	p53 Signaling, Cell Division Cycle

Application Details

Restrictions:	For Research Use only
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Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 20 mM Tris, 500 mM NaCl, pH 7.4, 10 % glycerol
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.