

**California Bioscience** 

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# **Product Datasheet**

| Product Name | DNA Damage Inducible Transcript 3 Human Recombinant, GST tag          |
|--------------|---|
| Cata No      | CB501123  |
| Source       | Escherichia Coli.   |
| Synonyms     | DNA damage-inducible transcript 3, DDIT-3, Growth arrest and          |
|              | DNA-damage-inducible protein GADD153, C/EBP-homologous protein, CHOP, |
|              | DDIT3, GADD153, CEBPZ, CHOP10, MGC4154.                               |

### Description

GADD 153 has been described as a growth arrest and DNA damage-inducible gene that encodes a C/EBP-related nuclear protein. GADD153 expression is induced by a variety of cellular stresses, including glucose deprivation, exposure to genotoxic agents, UV irradiation, the acute phase reaction, and other growth-arresting situations. GADD153 functions to block cells in G1 to S phase in cell cycle progression and acts by dimerizing with other C/EBP proteins to direct GADD153 dimers away from "classical" C/EBP binding sites, recognizing instead unique "nonclassical" sites. In growing cells gadd153 is expressed at very low levels. Cell cycle arrest might be induced by forced expression of gadd153 in numerous types of cells; it might also induce cell death by apoptosis. Myc protein strongly stimulates cellular proliferation by inducing cells to exit G0/G1 and enter the cell cycle. Myc protein represses the expression of gadd153. During the development of the brain CHOP pathway plays a role in neuronal apoptosis. There is consistent rearrangement of the gadd153 gene in myxoid liposarcomas. The fusion of CHOP with the neighboring TLS gene creates TLS-CHOP which is

a tumor-specific form of CHOP. This fusion fails to cause growth arrest and hinders with the ability of normal CHOP to induce growth arrest. DDIT3 Human Recombinant full length protein fused to GST tag expressed in E.coli, shows a 52 kDa on SDS-PAGE. The DDIT3 is purified by proprietary

chromatographic techniques.

# **Physical Appearance**

Sterile Filtered clear solution.

## Formulation

DDIT3 protein at a concentration 100µg/ml in 50mM Tris-Acetate, pH7.5, 1mM EDTA and 20% Glycerol.

#### Stability

Store vial at  $-20^{\circ}$  to  $-80^{\circ}$ . When stored at the recommended temperature, this protein is stable for 12 months.

Please prevent freeze-thaw cycles.

#### Applications

- ELISA
- Western Blotting