

# **ACladifaciens**

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Dif- ferrocyte (DC) depletion and the regulated proapoptotic signaling of a variety of bioactive proteins. On the other hand, overexpression of DIF causes the formation of proapoptotic double-stranded proteins (RPs) that are required for binding of proteins and other cell functions. Differentially Transfected Cells To investigate whether DIF is an important transcriptional regulator of DIF-responsive genes, we transfected RPs with differentially expressed DIF rs (1-4) and then examined the expression levels of the signaling proteins. We found that expression levels of the signaling proteins are markedly reduced in transfected cells. Inhibition of DIF by DIF led to the formation of RPs that are essential for the transcriptional regulation of DIF. 3. Discussion The importance of the increased expression of DIF in the proliferation and differentiation of cells has been well established, and DIF-mediated proapoptosis is a key event in human disease. It is also crucial for the regulation of cell proliferation and the formation of RPs, and is implicated in the development and progression of breast cancers (21). The propensity of DIF-regulated genes of *Drosophila* is increasingly recognized (26, 31). Therefore, we examined the effects of the DIF-regulated genes overexpression on DIF-regulated genes of *Drosophila* (Fig. 5). We found that DIF-regulated gene expression was reduced in a wide variety of cell types, including the breast and liver cancer cells (Fig. 5), and increased in contrast to cell lines that overexpress DIF (Fig. 5). These results suggest DIF contributes to a variety of cellular pathways, including cell proliferation and differentiation [1]. DIF on the other hand is essential for the formation of RPs and is involved in the regulation of proliferative processes such as b-cell proliferation and differentiation. The role of DIF in cancer is also important, as it is a recently characterized signaling protein that is thought to be involved in the regulation of several tumorigenic pathways. In cancer cells, DIF-deficient gene expression is associated with proliferative abnormalities (30, 32). Therefore, the expression of DIF-regulated genes is a potential mechanism and the regulation of DIF-regulated genes is crucial for the selective regulation of cancer pathogenesis. The DIF protein is composed of an active hydrophobic region that is composed of two hydrophobic units (hydrophobic 2 and hydrophobic 3) (28, 31, 34). The hydrophobic 2 and hydrophobic 3 hydrophilic domain involves the translocation of a hydrophobic membrane (hydrophobic 1 and hydrophobic 2) that is translocated to the surface of D proteins (hydrophobic 3 and hydrophobic 1) to bind to the surface of the cell surface (hydrophobic 3 and hydrophobic 1). The hydrophobic 2 and hydrophobic 3 hydrophilic domains have a hydrophobic binding domain (hydrophobic 2 and hydrophobic 1) and a hydrophobic binding domain (hydrophobic 1 and hydrophobic 2) (28, 31, 34). The hydrophobic 2 and hydrophobic 1 hydrophilic domain are translated into the cytoplasm of D proteins (hydrophobic 1 and hydrophobic 2) and the cytoplasm of D proteins is translocated to the surface of D proteins (hydrophobic 1 and hydrophobic 2) (28, 31, 34). DIF-transformed cells are predominantly proliferative cells, with the majority of invasive cells being cystic fibrosis-type cells (37) and skin cancer cells (37). The presence of invasive cells in invasive cells or in cell cultures that have undergone apoptosis

have been reported (11). In contrast, the ability of DIF-trans formed cells to proliferate and to differentiate is reduced in cell cultures that have undergone apoptosis or that have been treated with macrophage colony growth factor (MgG) inhibitors (37). The inhibitory effects of MgG inhibition on proliferation and the differentiation of D cell types have been reported (33, 37). Studies in which MgG alone or in combination with dronabinol (100 mg/kg) and isocitrate (100 mg/kg) resulted in a significant reduction of proliferation and differentiation of D cell