CIP29 (cytokine induced protein 29 kDa)

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Identity

Other names: HCC-1
Location: 12q13
Note: HCC-1 is an alias for CIP29 (12q13), but also for CCL14 (17q11.2).

Protein

Description
210 amino acids, 29 kDa; contains from N term to C term a SAP domain and 2 nuclear localization domains, and also 3 possible N-glycosylation sites and 9 potential phosphorylation sites. A SAP domain is a putative DNA binding motif involved in chromosomal organization and may regulate transcription, DNA repair, RNA processing.

Expression
Widely expressed in fetal and adult tissues, as well as cancer cell lines; upregulated by EPO (erythropoietin), TPO (thrombopoietin), FL (FLT3 Ligand), and SCF (stem cell factor). Associated with cell cycle progression.

Localisation
Nucleus but some staining was also found in the cytoplasm.

Implicated in

M4 acute non lymphocytic leukaemia (ANLL) with t(11;12)(q23;q13) --> (MLL/CIP29)
Note: Only one case to date.

Prognosis
Unknown.

Hybrid/Mutated gene
5’ MLL - 3’ CIP29 including the 9 first exons of MLL, and nearly the entire CIP29.

Abnormal protein
The fusion protein includes from N term to C term the AT hooks and the methyltransferase domain of MLL and the SAP domain and the C term nuclear localization domains of CIP29.

References


This article should be referenced as such: