

### 1.5.1.2.3 Sprycel<sup>®</sup> (Dasatinib)

It is an inhibitor of multiple tyrosine kinases. Dasatinib is active in leukaemic cell lines, representing variants of chronic myeloid leukaemia (CML), and acute lymphoblastic leukaemia (ALL). It is also indicated for treatment of adults with philadelphia chromosome positive lymphoblastic leukaemia, with resistance or intolerance to prior therapy (O'Hare *et al.*, 2011).

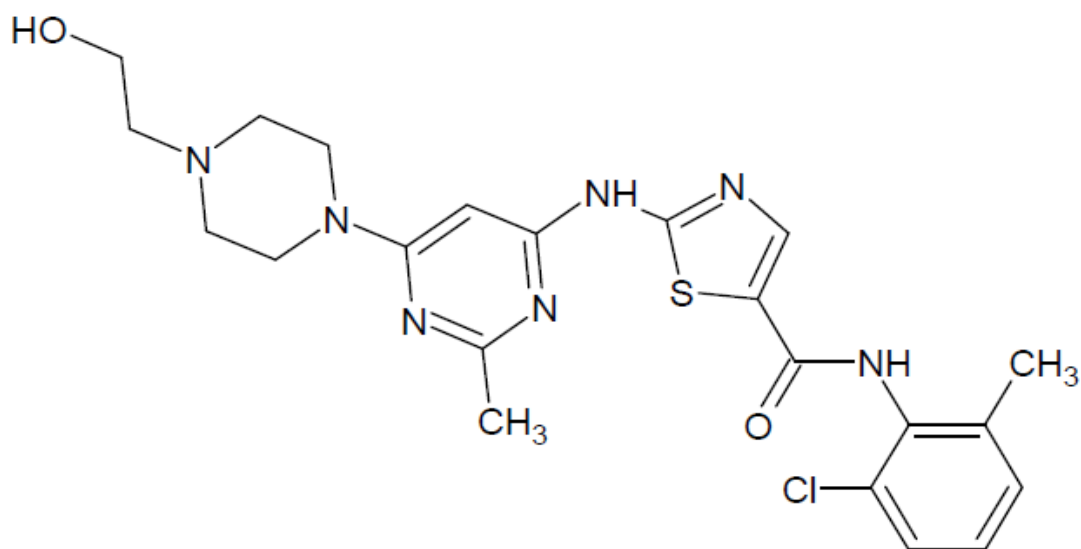


Figure 4: N-(chloro-6-methylphenyl) -2- {{6-{{4-(2-hydroxyethyl)-1-piperazinyl}}-2-methyl-4-pyrimidinyl} amino-thiazol carboxamide.

### 1.5.1.2.4 Gleevec<sup>®</sup> (Imatinib mesylate)

Gleevec<sup>®</sup> is the first signal transduction inhibitor, which interfere with the pathways that signal the growth of tumor cell in chronic myeloid leukemia (Bixby and Talpaz 2010).

Gleevec<sup>®</sup>, a specific inhibitor of the translocation created enzyme, works by blocking the rapid growth of white blood cells by blocking the chromosome translocation that leads to a blood cell enzyme being "turned on" all the time (Druker *et al.*, 2006). As a result, potentially life-threatening levels of both mature and immature white blood cells will not occur in the bone marrow and the blood (Au *et al.*, 2012).