

### 1.5.1.2.8 Sutent<sup>®</sup> (Sunitinib maleate).

It is an Oxinidol molecule designed to interact selectively with the intracellular ATP-binding sites of tyrosine kinase vascular endothelial growth factor receptors 1-3 (VEGFR1-3), platelet-derived growth factor receptors (PDGFRs), stem cell growth factor receptor (KIT), fms-related tyrosine kinase 3 (FLT3) and colony-stimulating factor 1 receptor (CSF1R) (Casanovas *et al.*, 2005).

Receptor inhibition has multiple effects on cellular processes including tumor cell survivor, endothelial cell growth and migration, vascular permeability, pericyte recruitment and lymphangiogenesis (Faivre *et al.*, 2007).

The final antitumor effects may be classified as follows:

- a) Direct cytotoxic effects on tumor cells by induction of cell death,
- b) Anti-angiogenic effects leading to growth delay and/or tumor regression by cytostatic inhibition of new blood vessel formation,
- c) Vascular disruption by inhibition of existing VEGF-VEGFR-dependent tumor blood vessels leading to central tumor cell necrosis, and
- d) Cavitation that may be associated or not with tumor regression (Ozao-Choy *et al.*, 2009).

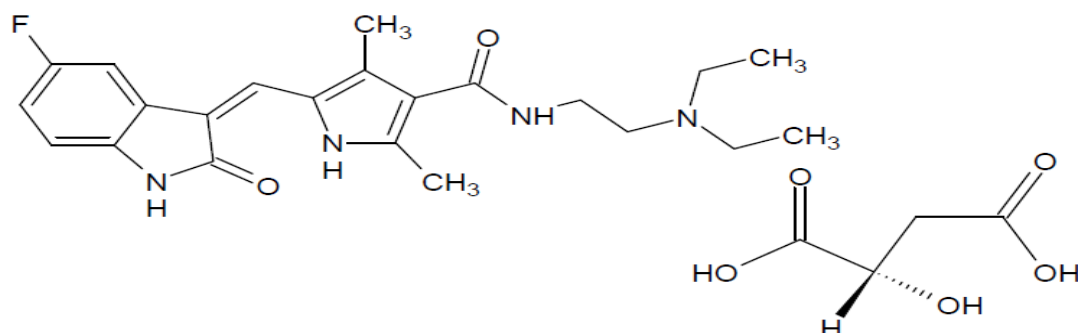


Figure 9: N- (2-diethylaminoethyl) -5- {(Z)-(5-fluoro-2-oxo-1H-indol-3-ylidene) methyl} -2,4-dimethyl-1H-pyrrole-3-carboxamide.