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Voxelotor

National Cancer Institute

Source

National Cancer Institute. *Voxelotor*. NCI Thesaurus. Code C152089.

An orally bioavailable modulator and stabilizer of sickle cell hemoglobin (HbS), with potential use in the treatment of sickle cell disease (SCD). Upon administration, voxelotor targets and covalently binds to the N-terminal valine of the alpha chain of HbS. This stabilizes HbS, thereby improving oxygen binding affinity. The binding of voxelotor to HbS prevents HbS polymerization, reduces sickling, decreases red blood cell (RBC) damage and increases the half-life of RBCs. This improves blood flow and decreases hemolytic anemia.