DFO Derivatives

Desferrioxamine derivatives with tris-hydroxamate functional groups are substances that are structurally linked to desferrioxamine (DFO). Desferrioxamine is a naturally occurring siderophore, a substance made by bacteria to bind and scavenge iron. Tris-hydroxamate desferrioxamine derivatives are often made by adding more tris-hydroxamate groups to the desferrioxamine molecule or by changing its structure through chemical processes. Derivatives with improved characteristics or specific functionality may result from these alterations.

Due to their strong affinity for attaching metal ions, notably iron, tris-hydroxamate functional groups are being added to desferrioxamine derivatives. Desferrioxamine can be changed with tris-hydroxamate groups to produce compounds with higher iron-binding affinity or better stability than the original desferrioxamine molecule. Numerous uses for these derivatives exist, particularly in the field of medicine. As iron chelators, desferrioxamine and its derivatives bind to extra iron in the body and aid in its elimination.

Tris-hydroxamate desferrioxamine derivatives may be useful as imaging agents in medical diagnostics or in targeted medication delivery systems. Desferrioxamine's structure can be altered to allow the incorporation of additional molecules, such as medication or imaging agents, to produce substances that preferentially target particular tissues or cells.

CD Bioparticles manufactures and supplies DFO derivatives for research. Contact us to find out how DFO derivatives can help your work.