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Novel Synthesis of Baclofen

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Abstract : Baclofen is a Gama amino Butyric acid (GAMA) agonist used as a skeletal muscle relaxant, it is known to be particularly useful in treating muscle spasticity. We now report the synthesis of Baclofen with patent non-infringing novel route, starting from 4-chlorobenzaldehyde when treated with sodium cyanide gave cyanohydrin with 70% yield. This cyanohydrin on treatment with an oxidizing agent Pyridinium ChloroCromate gave 4-chlorobenzoylcyanide which when further reacted with triphenyl phosphonium ethyl acetate gave a product, which on base hydrolysis followed by catalytic hydrogenation yielded baclofen though in poor yield, the identity of this has been established by mass spectral analysis and confirmed by comparing with standard Baclofen.

Keywords : GABA agonist, Spasticity, 4-Chlorobenzaldehyde, Cyanohydrin, Oxidising agent, Pyridinium chlorochromate, Triphenyl phosphonium ethyl acetate. Hydrolysis, Catalytic hydrogenation, mass spectral analysis and Baclofen.

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