3-Iodothyronamine (hydrochloride)
Item No. 16121

CAS Registry No.: 788824-64-6
Formal Name: 4-[2-(2-aminoethyl)-2-iodophenoxy]phenol, monohydrochloride
Synonym: T1AM
MF: C14H14INO2 • HCl
FW: 391.6
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that 3-iodothyronamine (T1AM) (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

T1AM (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the T1AM (hydrochloride) in the solvent of choice. T1AM (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of T1AM (hydrochloride) in these solvents is approximately 25, 30, and 50 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of T1AM (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of T1AM (hydrochloride) in PBS, pH 7.2, is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

T1AM is derived from the deiodination and decarboxylation of endogenous thyroxine. It activates the G protein-coupled receptor known as trace amine-associated receptor 1 at nanomolar concentrations whereupon it rapidly influences thyroid hormone actions including body temperature, heart rate, and cardiac output.1,2 It has also been reported to function in controlling lipid and glucose utilization, hormonal secretion, and neuronal function, and has been considered for use in chemically-induced hibernation for medical purposes.3-5

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/16121

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to your institution.

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