

IBMX

Catalog Number :2885842

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: 1-Methyl-3-isobutylxanthine, 3-Isobutyl-1-methylxanthine, Isobutyltheophylline

Chemical Name: 1-methyl-3-(2-methylpropyl)-7H-purine-2,6-dione

Molecular Formula: C₁₀H₁₄N₄O₂

Molecular Weight: 222.3

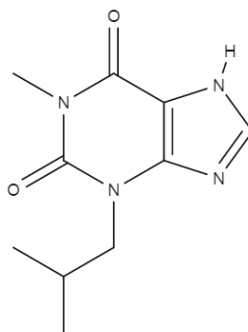
CAS Number: 28822-58-4

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

IBMX is a general inhibitor of cyclic nucleotide phosphodiesterases, increasing the level of intracellular cAMP. It is used to increase cell differentiation, decrease proliferation, and induce apoptosis. IBMX is reported to inhibit TNF-alpha, reduce inflammation, and activate PKA.

Preparation & Storage

Soluble in organic solvents such as ethanol or DMSO. Soluble in DMSO up to 10 mg/ml.

References

1. Usachev, Y., Verkhratsky, A. (1995). IBMX induces calcium release from intracellular stores in rat sensory neurones.;Cell calcium,;17(3), 197-206.
2. Tio, M., Tan, K. H., Lee, W., Wang, T. T., Udolph, G. (2010). Roles of db-cAMP, IBMX and RA in aspects of neural differentiation of cord blood derived mesenchymal-like stem cells.;PLoS One,;5(2), e9398.
3. Hube, F., Lee, Y. M., Röhrig, K., Hauner, H. (1999). The phosphodiesterase inhibitor IBMX suppresses TNF-alpha expression in human adipocyte precursor cells: a possible explanation for its adipogenic effect.;Hormone and metabolic research= Hormon-und Stoffwechselforschung= Hormones et métabolisme,31(6), 359-362.