IBMX
Catalog Number P019-100MG
Catalog Number P019-1G

FEATURES
- Pan-specific inhibitor of PDEs
- Increases cellular cAMP and cGMP
- Activates protein kinases

INTRODUCTION
IBMX is a widely-used non-specific inhibitor of cyclic AMP and cyclic GMP phosphodiesterases (PDEs) with IC50s from 7 to 50 μM for PDE1-5, PDE7, and PDE11. PDE8A, PDE8B, and PDE9 are insensitive to IBMX. By inhibiting PDEs, IBMX increases cellular cAMP and cGMP levels, activating cyclic-nucleotide-regulated protein kinases. Methylxanthines, including IBMX, caffeine, and theophylline, bind adenosine receptors, typically antagonizing the suppressive effects of natural agonists. Suppresses α-adrenoceptor-mediated 5-HT release from neuroendocrine epithelial cells (IC50 = 1.3 μM).

FORM: White solid

MOLECULAR WEIGHT: 222.24

STORAGE: Room temperature desiccated

FORMULA: C_{10}H_{14}N_{4}O_{2}

CAS NUMBER: 28822-58-4

OTHER NAMES: 3,7-Dihydro-1-methyl-3-(2-methylpropyl)-1H-purine-2,6-dione, NSC 165960, 1-Methyl-3-Isobutylxanthine, Isobutylmethylxanthine

USES: Soluble to 15 mg/mL in DMF or DMSO.

REFERENCES:
