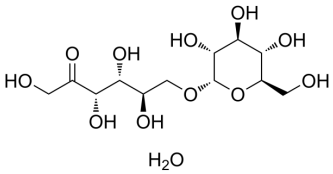
Isomaltulose monohydrate

Cat. No.:	HY-W745090
CAS No.:	58024-13-8
Molecular Formula:	$C_{12}H_{24}O_{12}$
Molecular Weight:	360.31
Target:	Formyl Peptide Receptor (FPR); Src; ERK; Akt; p38 MAPK
Pathway:	GPCR/G Protein; Protein Tyrosine Kinase/RTK; MAPK/ERK Pathway; Stem Cell/Wnt; PI3K/Akt/mTOR
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



H_2O

BIOLOGICAL ACTIVITY

Description	Isomaltulose monohydrate is a fMLP inhibitor and also inhibits Src kinase, ERK1/2, p38 and AKT phosphorylation signals in immune regulation. Isomaltulose monohydrate can interfere with the interaction between the βγ subunit of the fMLP receptor Gi protein and its downstream molecules, thereby inhibiting fMLP-induced respiratory burst. Isomaltulose monohydrate inhibits fMLP (0.1 μM)-induced superoxide anion production (IC_{50}: 1.98 μM) , cathepsin G release (IC< sub>50: 2.76 μM) and chemotaxis. Isomaltulose monohydrate can improve excessive activation of neutrophils and reduce inflammation or tissue damage. A series of derivatives of Isomaltulose monohydrate are found to have inhibitory effects on FSGS-related TRPC6 functional mutants[1].

REFERENCES

[1]. Lina BA, et al. Isomaltulose (Palatinose): a review of biological and toxicological studies. Food Chem Toxicol. 2002 Oct;40(10):1375-81.

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