

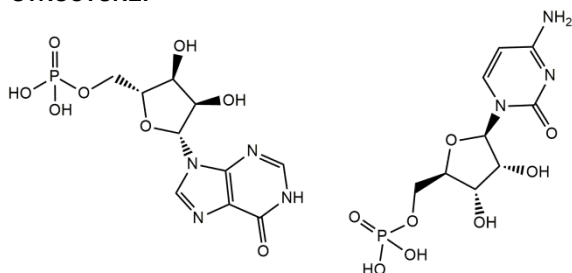
Poly(I:C)

ALTERNATE NAMES:

[(2R,3S,4R,5R)-5-(4-amino-2-oxypyrimidin-1-yl)-3,4-dihydroxyoxolan-2-yl]methyl dihydrogen phosphate--[(2R,3S,4R,5R)-3,4-dihydroxy-5-(6-oxo-1H-purin-9-yl)oxolan-2-yl]methyl dihydrogen phosphate; Polyinosinic acid-polycytidylic acid; Poly I:poly C; Polyinosinic acid, homopolymer, complex with polycytidylic acid, homopolymer (1:1)

CATALOG #:

B2989-100 100 mg
 B2989-500 500 mg

STRUCTURE:

MOLECULAR FORMULA:
 $(C_{10}H_{13}N_4O_8P)_x \cdot (C_9H_{14}N_3O_8P)_x$
MOLECULAR WEIGHT:

671.4

CAS NUMBER:

24939-03-5

APPEARANCE:

White to off-white powder

PURITY:

>95%

SOLUBILITY:

~3 mg/ml in Water

To prevent denaturation, this product should be reconstituted in solutions with physiological salt concentrations. Ultrasonication or gentle warming can be carried out for improving solubility.

DESCRIPTION:

Poly(I:C) is a double-stranded homopolymer of polyinosinic acid and polycytidylic acid. Transfection of Poly(I:C) (1 µg/ml) into NIT 1 cells has been used as a model of intracellular double-stranded RNA-induced beta-cell apoptosis. Poly(I:C) induced apoptosis in 45% of the cells, 18h after transfection. Maturation mixtures containing various cytokines, IFN-γ and TLR3 agonist poly(I:C) in combination with TLR7/8 agonists R848 or CL075 yield 3-d mature dendritic cells that secrete high levels of IL-12(p70) and show strong chemotaxis to CCR7 ligands. Epigenetic modulation of cardiac progenitor cells with Poly(I:C) accelerates maturation of cardiomyocytes.

STORAGE TEMPERATURE:

-20°C

HANDLING:

Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

- Robbins, M.A., Maksumova, L., Pocock, E. et al. Nuclear factor-kappaB translocation mediates double-stranded ribonucleic acid-induced NIT-1 beta-cell apoptosis and up-regulates caspase-12 and tumor necrosis factor receptor-associated ligand (TRAIL). *Endocrinology*. 144(10):4616-25 (2003).
- Spranger, S., Javorovic, M., Bürdek, M. et al. Generation of Th1-polarizing dendritic cells using the TLR7/8 agonist CL075. *J Immunol*. 185(1):738-47 (2010).
- Biermann, M., Cai, W., Lang, D. et al. Epigenetic Priming of Human Pluripotent Stem Cell-Derived Cardiac Progenitor Cells Accelerates Cardiomyocyte Maturation. *Stem Cells*. 37(7):910-923 (2019).

RELATED PRODUCTS:

Loxoribine (Cat. No. 2003)
 Motolimod (Cat. No. B1594)
 Imiquimod (Cat. No. 1698)
 Pam3Cys-Ser-(Lys)₄, Trihydrochloride (Cat. No. 1700)
 Bisdemethoxycurcumin (Cat. No. B2944)

DISCLAIMER:

FOR RESEARCH USE ONLY! Not to be used on humans.