

Store at  
-20C  
#61401**Poly(I:C) Sodium Salt**

25 mg


**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.****Background**

Poly(I:C) Sodium Salt, also known as polyinosinic-polycytidylic acid sodium salt, is a synthetic analog to double-stranded RNA (dsRNA) and potent activator of Toll-like receptor 3 (TLR3). The Toll-like receptor (TLR) family plays an important role in the innate immune response (1). TLR3 functions as a receptor for dsRNA typically associated with viral infection (2). Binding of dsRNA, or the analog Poly(I:C), to TLR3 triggers activation of transcription factors NF- $\kappa$ B and IRF3 through the adaptor protein TICAM-1/TRIF (3,4). Studies have shown that combination treatment with Poly(I:C) can increase vaccine immunogenicity against viral and cancerous diseases (5,6).

**Purity**

&gt;98%

**CAS**

42424-50-0

**Solubility**

Soluble in water at 10 mg/ml with warming.

**Storage**

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C. *Aliquot to avoid multiple freeze/thaw cycles.*

**Directions for Use**

Poly(I:C) Sodium Salt is supplied as a lyophilized powder. To prevent denaturation, reconstitute in water containing physiological salt concentrations. Working concentrations and length of treatment can vary depending on the desired effect.

**Background References**

1. Alexopoulou, L. et al. (2001) *Nature* 413, 732-8.
2. Medzhitov, R. et al. (1997) *Nature* 388, 394-7.
3. Horng, T. et al. (2001) *Nat Immunol* 2, 835-41.
4. Oshiumi, H. et al. (2003) *Nat Immunol* 4, 161-7.
5. Liu, C. et al. (2018) *Hum Vaccin Immunother* 14, 931-40.
6. Zhou, C.X. et al. (2014) *BMC Vet Res* 10, 2.

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