



# SZABO SCANDIC

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## Produktinformation



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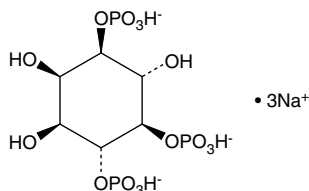
# Product Information



## D-*myo*-Inositol-1,4,5-triphosphate (sodium salt)

Item No. 10008205

**CAS Registry No.:** 141611-10-1  
**Formal Name:** D-*myo*-inositol-1,4,5-tris(hydrogen phosphate), trisodium salt  
**Synonyms:** Ins(1,4,5)P<sub>3</sub>, 1,4,5-IP<sub>3</sub>  
**MF:** C<sub>6</sub>H<sub>12</sub>O<sub>15</sub>P<sub>3</sub> • 3Na  
**FW:** 486.0  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A lyophilized solid



### Laboratory Procedures

For long term storage, we suggest that D-*myo*-inositol-1,4,5-triphosphate (Ins(1,4,5)IP<sub>3</sub>) (sodium salt) be stored as supplied at -20°C. It should be stable for at least one year.

Ins(1,4,5)IP<sub>3</sub> (sodium salt) is supplied as a lyophilized solid. Ins(1,4,5)IP<sub>3</sub> (sodium salt) is practically insoluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that aqueous solutions of Ins(1,4,5)IP<sub>3</sub> (sodium salt) be prepared by directly dissolving the lyophilized powder in aqueous buffers. The solubility of Ins(1,4,5)IP<sub>3</sub> (sodium salt) in PBS (pH 7.2) is at least 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

D-*myo*-Inositol-1,4,5-triphosphate (Ins(1,4,5)IP<sub>3</sub>) is a second messenger produced in cells by phospholipase C mediated hydrolysis of phosphatidyl inositol-4,5-bisphosphate.<sup>1,2</sup> It binds to one of several Ins(1,4,5)IP<sub>3</sub> receptors, each containing a calcium channel domain. Binding of Ins(1,4,5)IP<sub>3</sub> to the receptor results in opening of the calcium channels and an increase in intracellular calcium.<sup>2,3</sup>

### References

1. Streib, H., Irvine, R.F., Berridge, M.J., *et al.* Release of Ca<sup>2+</sup> from a nonmitochondrial intracellular store in pancreatic acinar cells by inositol-1,4,5-trisphosphate. *Nature* **306**, 67-69 (1983).
2. Yoshida, Y. and Imai, S. Structure and function of inositol 1,4,5-triphosphate receptor. *Jpn. J. Pharmacol.* **74**, 125-137 (1997).
3. Exton, J.H. Regulation of phosphoinositide phospholipases by hormones, neurotransmitters, and other agonists linked to G proteins. *Annu. Rev. Pharmacol. Toxicol.* **36**, 481-509 (1996).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10008205](http://www.caymanchem.com/catalog/10008205)

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

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