



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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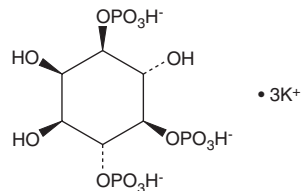
# PRODUCT INFORMATION



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

Item No. 60960

**CAS Registry No.:** 141611-11-2  
**Formal Name:** D-myo-inositol-1,2,5-tris(dihydrogen phosphate), tripotassium 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> • 3K  
**FW:** 534.4  
**Purity:** ≥98%  
**Supplied as:** A lyophilized powder  
**Storage:** -20°C  
**Stability:** ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Ins(1,4,5)-P<sub>3</sub> (potassium salt) is supplied as a lyophilized powder. Ins(1,4,5)-P<sub>3</sub> (potassium salt) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of Ins(1,4,5)-P<sub>3</sub> (potassium salt) can be prepared by directly dissolving the lyophilized powder in aqueous buffers. The solubility of Ins(1,4,5)-P<sub>3</sub> (potassium salt) in PBS (pH 7.2) is approximately 50 mg/ml; sonicate until a clear solution is obtained. We do not recommend storing the aqueous solution for more than one day.

### Description

Ins(1,4,5)-P<sub>3</sub> is a polyphosphoinositide involved in intracellular signalling. Ins(1,4,5)-P<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)-P<sub>3</sub> receptors, each containing a calcium channel domain. Binding of Ins(1,4,5)-P<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. Streb, 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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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