

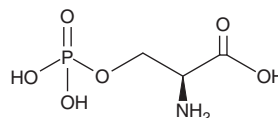
PRODUCT INFORMATION



O-Phospho-L-Serine

Item No. 16151

CAS Registry No.: 407-41-0
Formal Name: O-phosphono-L-serine
Synonyms: Dexfosfoserine, L-Serine-O-Phosphate, L-SOP
MF: $C_3H_8NO_6P$
FW: 185.1
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years



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

Laboratory Procedures

O-Phospho-L-serine is supplied as a crystalline solid. Aqueous solutions of O-phospho-L-serine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of O-phospho-L-serine in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

O-Phospho-L-serine is an agonist of the group III metabotropic glutamate receptors mGluR4a and mGluR6 ($EC_{50}s = 2-5 \mu\text{M}$).^{1,2} It mimics the phosphatidylserine head group and has been shown to inhibit the proliferation of microglia and to enhance neuronal differentiation of progenitor cells.³⁻⁵

References

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2. Conn, P.J. and Pin, J.P. Pharmacology and functions of metabotropic glutamate receptors. *Annu. Rev. Pharmacol. Toxicol.* **37**, 205-237 (1997).
3. Witting, A., Müller, P., Herrmann, A., *et al.* Phagocytic clearance of apoptotic neurons by microglia/brain macrophages in vitro: Involvement of lectin-, integrin-, and phosphatidylserine-mediated recognition. *J. Neurochem.* **75**(3), 1060-1070 (2000).
4. Bailey, T.J., Fossum, S.L., Fimbel, S.M., *et al.* The inhibitor of phagocytosis, O-phospho-L-serine, suppresses Müller glia proliferation and cone cell regeneration in the light-damaged zebrafish retina. *Exp. Eye Res.* **91**(5), 601-612 (2010).
5. Saxe, J.P., Wu, H., Kelly, T.K., *et al.* A phenotypic small molecule screen identifies an orphan ligand-receptor pair that regulates neural stem cell differentiation. *Chem. Biol.* **14**(9), 1019-1030 (2007).

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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