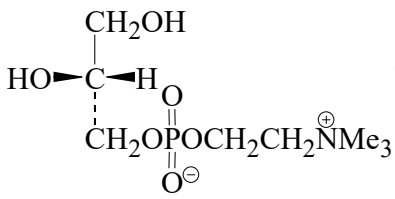
>>**Entry Name: Glycerylphosphorylcholine**
Synonym(s): 2-[[(2,3-Dihydroxypropoxy)hydroxyphosphinyl]oxy]-*N*,*N*,*N*-trimethylethanaminium inner salt, 9CI. Choline glycerophosphate



(*R*)-*form*

CAS Registry Number: 563-24-6
Related CAS Registry Numbers(s): 71861-27-3 73289-29-9

Molecular Formula: $C_8H_{20}NO_6P$
Molecular Weight: 257.223
Accurate Mass: 257.102826
Percentage Composition: C 37.36%; H 7.84%; N 5.45%; O 37.32%; P 12.04%
Biological Source: Isol. from beef pancreas. Synth. from egg yolk lecithin

>>**Variant:** (*R*)-form
Synonym(s): Choline alfoscerate, INN. *sn*-Glycero-3-phosphocholine

CAS Registry Number: 28319-77-9
Molecular Formula: $C_8H_{20}NO_6P$
Molecular Weight: 257.223
Accurate Mass: 257.102826
Percentage Composition: C 37.36%; H 7.84%; N 5.45%; O 37.32%; P 12.04%
Biological Use/Importance: Parasympathomimetic agent. Reported to be a precursor of acetylcholine. Used in the treatment of Alzheimer's disease and other dementias. Involved in osmoregulation by renal medullary cells
Physical Description: Hygroscopic viscous liq. or solid
Development Status: Lanched 1990
Optical Rotation: $[\alpha]_D^{23}$ –2.85 (c, 2.2 in H_2O)

>>**Derivative:** Compd. with $CdCl_2$

CAS Registry Number: 64681-08-9
Use/Importance: Form of choline glycerophosphate easier to handle than free compd.
Physical Description: Needles (EtOH)
Melting Point: Mp 100-102°
Optical Rotation: $[\alpha]_D^{24}$ –1.4 (c, 5.5 in H_2O)
Other Data: Sinters >97°

>>**Variant:** (*S*)-form
Synonym(s): *sn*-Glycero-1-phosphocholine

CAS Registry Number: 4217-84-9
Molecular Formula: $C_8H_{20}NO_6P$
Molecular Weight: 257.223
Accurate Mass: 257.102826
Percentage Composition: C 37.36%; H 7.84%; N 5.45%; O 37.32%; P 12.04%
Optical Rotation: $[\alpha]_{546}^{22}$ +3 (c, 2.5 in H_2O)
Other Data: Intermediate for synth of 'unnatural' 1-*sn*-phosphatidylcholines

>>**Variant:** (±)-form

CAS Registry Number: 34688-34-1
Molecular Formula: $C_8H_{20}NO_6P$
Molecular Weight: 257.223
Accurate Mass: 257.102826
Percentage Composition: C 37.36%; H 7.84%; N 5.45%; O 37.32%; P 12.04%
Melting Point: Mp 152-153°
Solubility: Sol. H_2O, EtOH, MeOH
Other Data: Described as visc. liq. (Baer) and v. hygroscopic powder (Mushika)

References: